1969-1970
CATALOG

The Graduate School

Bulletin of Bridgewater State College

CORRESPONDENCE

The general address for all correspondence is: Bridgewater State College, Bridgewater, Massachusetts 02324. In order to avoid delay, correspondents are requested to note the following directions.

Requests for Undergraduate catalogues should be addressed to the Registrar. Requests for catalogues of the Graduate School should be sent to the Office of the Graduate School. Requests for brochures of the Division of Continuing Studies should be addressed to the Office of the Division of Continuing Studies.

Inquiries concerning requirements for concentrations and majors in a given department should be addressed to the chairman of that department.

Requests for transcripts should be sent as follows:

> Students who hold a bachelor's and/or a master's degree from this college should write to the Registrar.
>
> Students who have not completed their bachelor's degree should write to the Registrar for a transcript of courses taken through the Day Session, and to the Director of Continuing Studies for a transcript of courses taken through the Division of Continuing Studies.
>
> Students who have earned their baccalaureate but who have not completed their master's degree, should write to the Director of Continuing Studies for a transcript of courses taken in the Division of Continuing Studies and to the Registrar for transcripts of courses taken in the Day Session. There is a charge of $1.00 per transcript.

Inquiries concerning employment, health services, housing, loans, and scholarships, should be addressed to the Director of Student Personnel.

Inquiries concerning the Summer Session at Bridgewater State College should be addressed to the Director of Continuing Studies.

Inquiries concerning the Summer Session at Hyannis should be addressed to the Director of the Hyannis Summer Session.

Inquiries relative to the Graduate School should be addressed to the Dean of the Graduate School.

Inquiries concerning placement and student teaching should be addressed to the Director of Teacher Education and Placement.

Inquiries concerning Continuing Studies should be addressed to the Director of Continuing Studies.

Inquiries concerning financial aid should be addressed to the Financial Aid Officer.

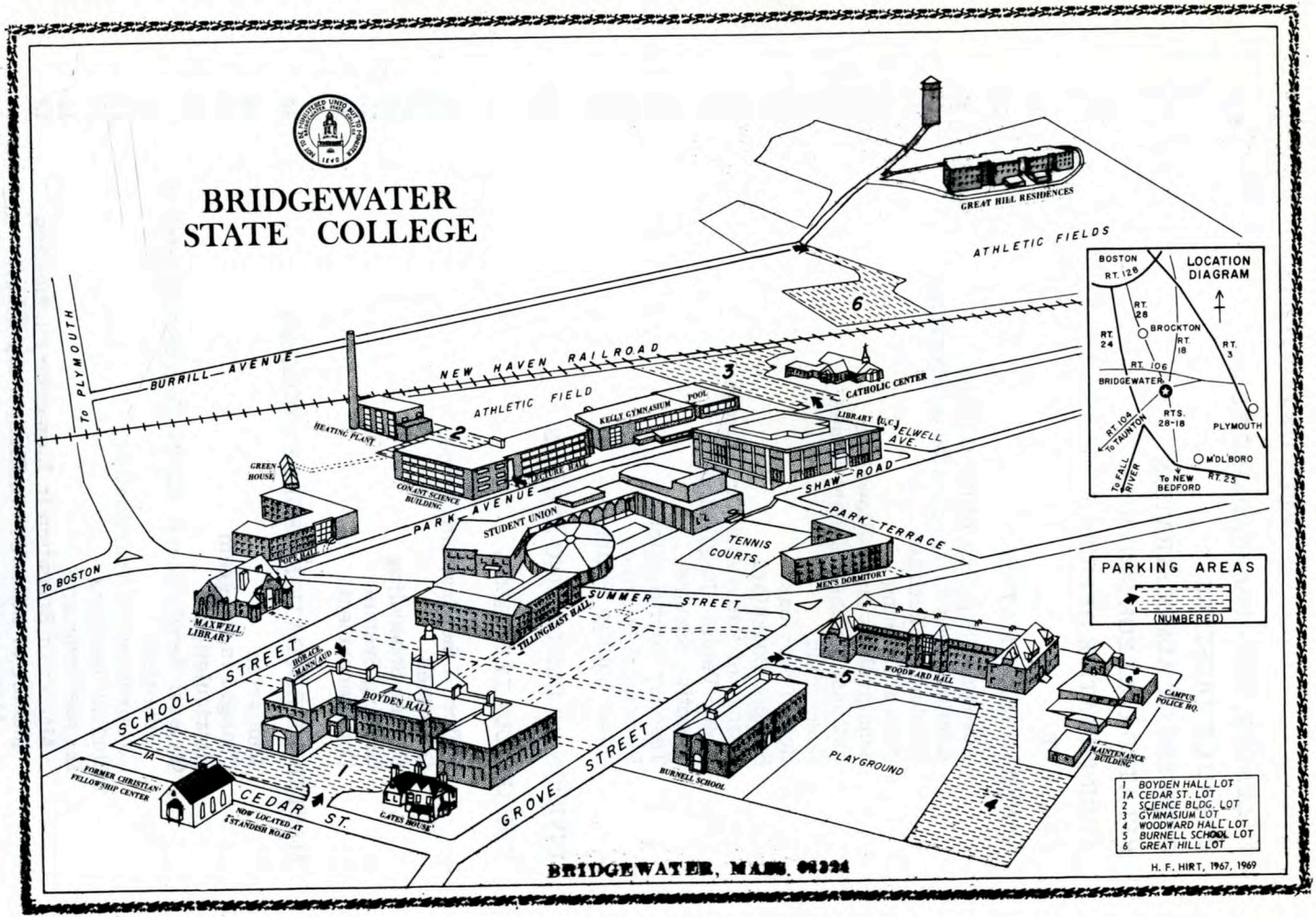
Inquiries concerning alumni affairs should be addressed to the Executive Secretary of the Alumni Association.

Inquiries concerning academic employment should be addressed to the chairman of the appropriate department.

Inquiries concerning non-academic employment should be addressed to the Assistant to the President.

Inquiries concerning teacher certification should be addressed to the Director of Teacher Certification, Department of Education, 182 Tremont Street, Boston, Massachusetts.

Matters not covered above, and correspondence bearing upon the general interests of the College, should be addressed to the President.


BRIDGEWATER
STATE COLLEGE
GREAT HILL RESIDENCES
ATHLETIC FIELDS
LOCATION DIAGRAM
BOSTON
RT. 128
RT. 28
BROCKTON
RT. 24
RT. 18
RT. 3
RT. 106
BRIDGEWATER
RTS. 28-18
PLYMOUTH
RT. 104 To TAUNTON
TO FALL RIVER
M'DL'BORO
To NEW BEDFORD
RT. 25
TO PLYMOUTH
BURRILL AVENUE
NEW HAVEN RAILROAD
ATHLETIC FIELD
CATHOLIC CENTER
HEATING PLANT
KELLY GYMNASIUM
POOL
LIBRARY
ELWELL AVE
GREEN HOUSE
CONANT SCIENCE BUILDING
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BRIDGEWATER, MASS. 02324
H. F. HIRT, 1967, 1969

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CALENDAR

DIVISION OF CONTINUING STUDIES

A new Bulletin, listing courses offered in the evening, is prepared each term (fall, spring, and summer). It is obtainable at the Office of the Division of Continuing Studies, Boyden Hall. Graduate students registering for courses offered by the Division during the fall, spring, and summer terms, should obtain this Bulletin.

GRADUATE SCHOOL

The following calendar lists important dates not included in the above bulletin. All graduate students should note critical dates.

CALENDAR 1969 - 1970
FALL TERM 1969

Dates are inclusive

2 September	Registration for Day Session courses for accepted full time graduate students. Prerequisite: permission of the Dean of the Graduate School
3, 4, and 5 September	Registration for courses in the Division of Continuing Studies, 3:00 P.M. to 7:00 P.M.
8 September	Classes begin, Day and Evening Sessions
18 September	Last date for admission to courses and for changes in registration in the Division of Continuing Studies
6 October	Last date for filing *Request to take the Comprehensive Examination* in November
13 October	No classes - Columbus Day
25 October	Graduate Record Examination (Lecture Hall, Conant Science Building). Aptitude Test from 8:45 A.M. to 12:15 P.M. Advanced Tests from 1:45 P.M. to 5:15 P.M.
1 - 30 November	Comprehensive Examinations for students accepted by the Graduate School after January 16, 1966. (Applicants for these examinations will be notified by mail as to the time and place of their examinations.)
15 November	Comprehensive Examinations for students accepted prior to January 17, 1966. (Lecture Hall, Conant Science Building, 9:00 A.M. to 12:00 A.M.)
26 and 27 November	No classes - Thanksgiving Recess
8 December	Last day for receiving completed applications for January admission to the Graduate School

13 December	Graduate Record Examination (Lecture Hall, Conant Science Building). Aptitude Test from 8:45 A.M. to 12:15 P.M. Advanced Tests from 1:45 P.M. to 5:15 P.M.
22 December - 2 January 1970	No classes - Christmas Recess
5 January	Reading Day: no classes in the Day Session
5 January	Last day for filing *Application for Degree* for students who expect to receive the diploma in February
8 January	Last day of classes in the Division of Continuing Studies
17 January	Graduate Record Examination (Lecture Hall, Conant Science Building). Aptitude Test from 8:45 A.M. to 12:15 P.M. Advanced Tests from 1:45 to 5:15 P.M.

SPRING TERM 1970

19 January	Registration for Day Session courses for accepted full time graduate students. Prerequisite: permission of the Dean of the Graduate School
21, 22, and 23 January	Registration for courses in the Division of Continuing Studies, 3:00 P.M. to 7:00 P.M.
26 January	Classes begin, Day and Evening Sessions
5 February	Last date for admission to courses and for changes in registration in the Division of Continuing Studies
16 February	No classes - Washington's Birthday
28 February	Graduate Record Examination (Lecture Hall, Conant Science Building). Aptitude Test from 8:45 A.M. to 12:15 P.M. Advanced Tests from 1:45 to 5:15 P.M.
2 March	Last date for filing *Request to take the Comprehensive Examination* in April
1 April	Last date for filing *Application for Degree* for students who expect to receive the diploma at June Commencement
1 - 30 April	Comprehensive Examinations for students accepted by the Graduate School after January 16, 1966. (Applicants for these examinations will be notified by mail as to the time and place of their examinations.)
11 April	Comprehensive Examinations for students accapted prior to January 17, 1966. (Lecture Hall, Conant Science Building, 9:00 A.M. to 12:00 A.M.)
20 April	No classes - Patriot's Day
25 April	Graduate Record Examination (Lecture Hall, Conant Science Building). Aptitude Test from 8:45 A.M. to 12:15 P.M. Advanced Tests from 1:45 P.M. to 5:15 P.M.

1 May	Last day for receiving completed applications for June admission to the Graduate School
18 May	Reading Day: no classes in the Day Session
21 May	Last day of classes in the Division of Continuing Studies
25 May	No classes - Memorial Day
31 May	Commencement
19 June	Last day for filing *Request to take the Comprehensive Examination* in July

SUMMER TERM 1970

1,2, and 3 July	Registration for Summer Term courses, 3:00 P.M. to 7:00 P.M.
6 July	Classes begin
8 July	Last day for filing *Application for Degree* for students who expect to receive the diploma in August
8 July	Last day for admission to courses and for changes in registration
11 July	Graduate Record Examination (Lecture Hall, Conant Science Building). Aptitude Test from 8:45 A.M. to 12:15 P.M. Advanced Tests from 1:45 P.M. to 5:15 P.M.
1 - 31 July	Comprehensive Examinations for students accepted by the Graduate School after January 16, 1966. (Applicants for these examinations will be notified by mail as to the time and place of their examinations.)
18 July	Comprehensive Examinations for students accepted prior to January 17, 1966. (Lecture Hall, Conant Science Building, 9:00 A.M. to 12:00 A.M.)
14 August	Last day of classes in the Summer Session

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Jane Herrick, A.B. (College of St. Teresa), M.A., Ph.D. (The Catholic University of America), Professor of History

Thomas Carol Higgins, B.A. (University of Maine), M.Ed. (Bridgewater State College), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science

Frank Joseph Hilferty, B.S. (Bridgewater State College), Ph.D. (Cornell University), Commonwealth Professor of Botany, Director of the Division of Natural Sciences and Mathematics, and Dean of the Graduate School

Virginia Lee Hogg, B.S., M.Ed. (Bridgewater State College), Instructor in Physical Education for Women

Williston Holbert, A.B. (Gordon College), M.Ed. (Bridgewater State College), Visiting Lecturer in Educational Philosophy

Elizabeth Hollis, B.S. (Boston University), M.A. (Columbia University), Associate Professor of Psychology

Kenneth Jesse Howe, B.A., M.S. (University of Rochester), Ph.D. (Cornell University), Professor of Botany and Chairman of the Department of Biological Sciences

Stephanie Olga Husek, A.B. (Seton Hill College), Ph.D. (Charles University, Prague), Professor of History

William S. Jacobson, B.A. (University of Washington), Ph.D. (Stanford University), Associate Professor of English

Kenneth Leo Johnson, A.B. (Tufts University), M.Ed. (Boston University), Visiting Lecturer in Educational Measurement

Achille Adrien Joyal, A.B. (St. Mary's University), M.A. (New York University), Assistant Professor of Philosophy

Virginia Carville Joki, A.B. (Radcliffe College), M.A. (University of Wisconsin), Associate Professor of English

Kenneth Paul Jubett, B.S. (Boston University), M.Ed. (Bridgewater State College), Visiting Lecturer in Special Education

Wayne Maurice Judah, A.B., M.A., Ph.D. (Indiana University), Associate Professor of French

Donald Lundeen Keay, B.S. (Bridgewater State College), M.A.T. (Harvard University), Associate Professor of History

Grace Doris Keenan, B.S., M.Ed. (Bridgewater State College), Visiting Lecturer in Special Education

Estela P. Keim, B.A. (Simmons College), M.A. (Brown University), Instructor in Art

Paul Francis Kelley, B.S., M.Ed. (Bridgewater State College), Associate Professor of Education

Archibald Kelly, B.S. (American International College), M.A. (Boston College), Visiting Lecturer in the Teaching of Mathematics

William Kendall, B.S. (University of Minnesota), M.S., M.F.A., (University of Wisconsin), Assistant Professor of Art

John Joseph Kent, B.S., M.Ed. (Bridgewater State College), Assistant Professor of Education

Isabelle Bragg King, B.S., M.Ed. (Bridgewater State College), Assistant Professor of Education

Thomas Allen Knudson, B.S. (Wisconsin State University at La-Crosse), M.S. (Springfield College), Assistant Professor of Physical Education for Men

Shirley Jane Krasinski, B.S. (University of Connecticut), M.S. (University of Massachusetts), Instructor in Physical Education for Women

Gutala Krishnamurti, B.A., M.A. (Andhra University), Ph.D. (Saugor University), Assistant Professor of English

Frank Joseph Lambiase, A.B. (Stonehill College), M.S. (Clarkson College of Technology), Instructor in Mathematics

Lawrence George Lambros, B.S., (Bridgewater State College), M.Ed. (Boston University), Visiting Lecturer in Special Education

Robert Leo Lavoie, B.S. (Boston University), M.B.A. (Harvard University), Visiting Lecturer in Education

Olive Lee, A.B. (Radcliffe College), B.S. (University of North Carolina), Instructor in Library Science

Thomas Lee, B.S. (Bridgewater State College), M.S. (Syracuse University), Assistant Professor of Instructional Media

Harry August Lehmann, B.S., Ed.M. (Springfield College), Associate Professor of Physical Education and Chairman of the Department of Health and Physical Education for Men

Joan Sawyer Leland, B.S. (Bridgewater State College), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science

Robert Elwood Lemos, B.S. (Bridgewater State College), Ed.M. (Harvard University), Associate Professor of Mathematics

James Trelear Lester, B.S. (Northwestern University), M.S., Ph.D. (University of California), Professor of Psychology, Chairman of the Department of Psychology

Jacob Liberles, B.S. (Lowell State College), M.A. (Bennington College), Instructor in Music

Evelyn Ruth Lindquist, B.S. (Bridgewater State College), Ed.M. (Boston University), Associate Professor of Education

Iva Viola Lutz, B.S., A.M. (Columbia University), Professor of Psychology

Edward Joseph Lynch, A.B. (Providence College), M.Ed. (Bridgewater State College), C.A.G.S. (Boston University), Visiting Lecturer in Guidance

Dennis Leo Lythgoe, B.A., M.A., Ph.D. (University of Utah), Assistant Professor of History

Robert Douglas MacCurdy, B.S. (University of Massachusetts), M.S. (Michigan State University), Ed.D. (Boston University), Professor of Education

Agrippina Anne Macewicz, B.S. (Worcester State College), M.A., Ph.D. (Clark University), Professor of Geography

Emanuel Maier, B.A., M.S. (City College of New York), Ph.D. (New York University), Ph.D. (Clark University), Professor of Geography and Chairman of the Department of Earth Sciences and Geography

Henry Myron Mailloux, B.S. (Fordham University), M.A. (Columbia University), Associate Professor of Mathematics

Michael Makokian, A.B. (Rhode Island College), M.A. (Rutgers University), Assistant Professor of Mathematics

Marion Jane Manthorne, B.A. (Bryn Mawr), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science

Vahé Mardiros Marganian, B.S. (San Francisco State College), M.S., Ph.D. (Clemson University), Assistant Professor of Chemistry

Raymond Louis Mathews, A.B. (Northeastern University), Ed.M. (Boston University), Visiting Lecturer in Reading

Peter Mazzaferro, B.A. (Centre College), M.Ed. (Springfield College), Instructor in Physical Education for Men

Charles F. McGinnis, A.B. (Tufts), M.A. (Boston College), Ph.D. (Columbia University), Associate Professor of English

Owen Thomas McGowan, A.B. (Maryknoll College), M.S. in L.S. (Catholic University), Librarian

Bernard James McKearney, B.S., M.A. (University of Wisconsin), Ph.D. (University of Connecticut), Visiting Lecturer in Educational Philosophy

Annabelle McConnell Melville, A.B., M.A. (Albany State College for Teachers), Ph.D. (The Catholic University of America), Commonwealth Professor of History

Chester Joseph Millett, Jr., B.S. (College of the Holy Cross), M.Ed. (Boston University), C.A.G.S. (Boston College), Visiting Lecturer in Educational Administration

Lawrence Bronislaw Mish, A.B. (University of Connecticut), A.M., Ph.D. (Harvard University), Professor of Botany

James Moir, B.S. (University of Illinois), M.Ed. (Framingham State College), Visiting Lecturer in Meteorology and Climatology

Joseph Graessle Moore, B.A. (Hamline University), B.D. (Seabury-Western College), M.A., Ph.D. (Northwestern University), Professor of Anthropology, Chairman, Department of Anthropology and Sociology, and Director, Division of the Behavioral Sciences

Thomas Eugene Moore, A.B. (Stonehill College), M.S. (University of Notre Dame), Instructor of Mathematics

Mary Josephine Moriarty, A.B. (Villa Maria College), B.S., Ed.M., Ed.D. (Boston University), Professor of Health and Physical Education for Women and Chairman of the Department of Health

and Physical Education for Women

Walter Arthur Morin, A.B. (Merrimack College), M.S. (Boston College), Ph.D. (Clark University), Associate Professor of Zoology

Patricia McCabe Mosley, B.A. (Emmanuel College), M.Ed. (Bridgewater State College), Visiting Lecturer in Education

John Fordyce Myers, A.B. (Bates College), A.M. (Boston University), Assistant Professor of History

Rita Kohler Nadal, B.S. (Framingham State College), Ed.M. (Boston University), Associate Professor of Education

James Keron Nerney, A.B. (University of Notre Dame), M.A. (Boston College), Assistant Professor of English

Leonel Joseph Neron, B.S., B.A. (Boston College), M.Ed. (Bridgewater State College), Visiting Lecturer in Educational Psychology

Mary Noel, A.B. (Radcliffe College), M.A., Ph.D. (Columbia University), Associate Professor of History

Adeline Dupuy Oakley, B.S. (Bridgewater State College), M.L.S. (Simmons College), Instructor in Library Science

Lucile O'Connell, B.A. (Brooklyn College), Instructor in History

Arthur Carlisle Oien, B.A. (Concordia College), M.A. (University of Minnesota), Assistant Professor of History

Vernon Eugene Oldham, A.B. (Boston University), M.A. (Columbia University), Visiting Lecturer in Guidance

Lenore Marie Padula, B.A. (Emmanuel College), M.A. (Boston College), Assistant Professor of Modern Foreign Languages

Joseph Michael Pagano, B.S. (Massachusetts Institute of Technology), M.S. (Boston College), Assistant Professor of Chemistry

Felix Stanley Palubinskas, S.B. (Massachusetts Institute of Technology), A.M.T. (Harvard University), Ph.D. (Iowa State University), M.D. (Tufts University), Professor of Physics

Patricia Ann Phillips, B.S. (Bridgewater State College), Ed.M. (Boston University), Assistant Professor of Health and Physical Education for Women

Wayne Richard Phillips, B.S. (Bridgewater State College), M.A. (University of Connecticut), Instructor in Education

Mercia Carter Pike, B.S., M.Ed. (Bridgewater State College), Visiting Lecturer in Educational Administration

Joseph Francis Plouffe, B.S. (Bridgewater State College), M.Ed. (Boston University), Visiting Lecturer in Guidance

John Heffron Porter, B.S., M.A. (Columbia University), Instructor in English

Francis Patrick Powers, A.B. (Maryknoll College), M.Ed., Ed.D. (Boston College), Visiting Lecturer in Educational Psychology

Robert William Prendergast, B.S., M.Ed. (Boston University), Visiting Lecturer in Guidance

Richard Wayne Quindley, A.B., M.S. (Northeastern University), Assistant Professor of Mathematics

William Joseph Quinlan, A.B. (Providence College), M.Ed. (Bridgewater State College), Visiting Lecturer in Guidance

John Gammons Read, B.S. (University of Massachusetts), M.A. (Brown University), Ed.D. (Boston University), Visiting Lecturer in Education

Christiana Pollak Reordan, B.S. (Oberlyzeum College, Germany), M.A. (Fordham University), Assistant Professor of Modern Foreign Languages

Harold Guy Ridlon, A.B. (Tufts University), M.A., Ph.D. (Harvard University), Professor of English, Chairman of the Department of English, and Director of the Division of Humanities

Adrian Rondileau, A.B. (The City University of New York), M.A., Ph.D.(Columbia University), President

Henry Rosen, A.B. (Dartmouth College), A.M., Ed.D. (Boston University), Professor of Instructional Media and Chairman of the Department of Instructional Media

Maurice Rotstein, B.S. (City College of New York), M.A., Ph.D. (New York University), Associate Professor of History

Marjorie Atwood Rugen, B.S. (Boston University), M.A. (New York University), Instructor in Physical Education for Women

Ignatius Philip Scalisi, B.S., M.S. (Northeastern University), Assistant Professor of Mathematics

Louis Schippers, A.B. (Phillips University), B.D. (Texas Christian University), Assistant Professor of Psychology

Hazel LaRochelle Schopp, B.S. (State Teacher's College at Hyannis), M.Ed. (Bridgewater State College), Instructor in Physical Education for Women

James Rudolph Scroggs, A.B. (Northeastern University), B.D. (Harvard Divinity School), Ph.D. (Boston University), Assistant Professor of Psychology

John Marshall Shaw, B.S., M.Ed. (Boston University), Visiting Lecturer in Education

Mary Cingolani Shapiro, B.S. (Bridgewater State College), M.A. (DePaul University), Assistant Professor of French and Methodology

Samuel Norman Sheinfeld, A.B., A.M. (Harvard University), M.Ed. (Boston State College), Ed.D. (Harvard University), Professor of English

Robert J. Silbernagel, B.A., M.A. (Boston College), Instructor in English

Philip Thomas Silvia, Jr., B.A. (Providence College), M.A. (Fordham University), Instructor in History

Peter Simoglou, B.A. (Harvard University), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science

Donald Clayton Simpson, B.Ed. (Keene Teachers College), M.S. (Clarkson College of Technology), M.A. (Rutgers State University), Assistant Professor of Mathematics

Johanne Smith, B.S. (East Stroudsburg State College), M.S. (University of Illinois), Instructor in Physical Education for Women

Leonard Solomon, B.A. (City College of New York), M.A. (Cornell University), Visiting Lecturer in Astronomy

Margaret Borden Souza, B.S. (Bridgewater State College), M.S. (Boston College), Associate Professor of Chemistry

Benjamin Arthur Spence, B.S. (Bridgewater State College), M.A. (University of Wisconsin), Associate Professor of History

Doris Margaret Sprague, B.S., M.Ed. (Bridgewater State College), Associate Professor of Education and Principal of the Burnell School

Judith McNutt Stanton, B.A., M.A. (University of Maine), Instructor in English

Robert Francis Sutherland, A.B. (Stonehill College), M.S. (University of Missouri at Kansas City), Instructor in Mathematics

Edward Carl Swenson, B.S. (Boston College), Ed.M. (Boston University), Associate Professor of Physical Education for Men

Doris Emma Tebbetts, B.S. (Massachusetts College of Art), M.A. (University of Minnesota), Associate Professor of Art and Chairman of the Department of Art

Abraham Vazhayil Thomas, B.A., M.A. (University of Madras, India), S.T.M. (Union Theological Seminary), Th.D. (Boston University), Assistant Professor of Sociology

Mary Lou Thornburg, B.S. (Wisconsin State University at LaCrosse), M.S. (University of North Carolina at Greensboro), Ph.D. (University of Iowa), Associate Professor of Physical Education for Women

Gerald Joseph Thornell, B.A. (Curry College), M.S. (Central Connecticut College), Instructor in Education

Sharon Tufts, B.S. (Bridgewater State College), M.S.P.E. (University of North Carolina), Ph.D. (University of Iowa), Assistant Professor of Physical Education for Women

Claire Mary Walker, B.S. (Bridgewater State College), M.S.Ed. (Northeastern University), Instructor in Education

William James Wall, Jr., B.S., M.S. (University of Massachusetts), Ph.D. (University of California), Professor of Zoology

Margaret Mary Wallace, A.B., M.S. (Hunter College), Instructor in Education

Robert F. Ward, B.S. (Bridgewater State College), Ed.M. (Boston University), Instructor in Instructional Media

Tom G. Watson, B.A. (Baptist University), M.A. (University of Arkansas), Assistant Professor of English

Dorothy Wertz, A.B. (Radcliffe College), A.M., Ph.D., (Harvard University), Assistant Professor of Anthropology and Sociology

George Alexander Weygand, B.S., M.Ed. (Bridgewater State College), Ed.D. (Harvard University), Professor of Physics

Alfred Young Wolff, Jr., A.B. (William and Mary College), M.A. (University of Virginia), Instructor in History

Carol Ann Wolfgram, B.S. (Wisconsin State College), M.A. (Colorado State College), Instructor in Physical Education for Women

Clifford Arthur Wood, B.S. (Bridgewater State College), M.A.T. (Brown University), Assistant Professor of English

Dorothy Sherman Wood, B.S. (Bridgewater State College), M.Ed. (Boston University), Associate Professor of Education

Vincent James Worden, B.S. (Worcester State College), Ed.M. (Loyola College), Assistant Professor of Education

Lynne Yeamans, B.S. (Bridgewater State College), M.S. (Smith College), Instructor in Physical Education for Women

Joseph A. Yeskewicz, B.S. (Springfield College), M.Ed. (University of Massachusetts), Instructor in Health & Physical Education for Men

Richard Yin, B.A. (Chengchi University, Taiwan), M.A. (Brigham Young University), Instructor in Political Science

Joseph Bernard Yokelson, B.A. (Brooklyn College), M.A., Ph.D. (Brown University), Associate Professor of English

Raymond John ZuWallack, B.A. (University of Connecticut), M.S. (Southern Connecticut State College), Instructor in Education

ADDENDA

Richard Barber, Ph.D. (Stanford University), Visiting Lecturer in Oceanography

Robert Jackson Barnett, A.B. (Juniata College), M.A. (Pennsylvania State University), Associate Professor of Speech and Chairman of the Department of Speech and Theatre

Karin Van Lissel Dubin, A.B. (Parsons College), M.A. (University of Chicago), M.A. (University of Michigan), Ph.D. (Columbia University), Associate Professor of Speech and Theatre

Lee Anne Firestone Dunne, B.S. (Northwestern University), M.A. (Hunter College), Instructor in Speech

Warren David Englund, B.A. (Simpson College), M.S. (Drake University), Associate Professor of Education

Richard A. Freeman, B.S. (Southeastern Massachusetts University), M.B.A. (Suffolk University), Instructor in Economics

Robert Kenneth Friedman, A.B., M.A. (Brooklyn College), Assistant Professor of Speech and Theatre

Ruth Mary Gamson, B.S., M.Ed. (Bridgewater State College), Associate Professor of Education

Margaret Frances Guerin, A.B. (Boston University), B.S. (Bridgewater State College), A.M. (Boston University), Associate Professor of English

Walter Milton Hewitson, A.B. (Miami University), M.S. (Cornel University), Ph.D. (Washington University), Assistant Professor of Biology

Mary Moore Jarvis, B.S. (Bridgewater State College), M.A. (Middlebury College), Associate Professor of English

John William Jones, B.S., M.Ed. (Bridgewater State College), M.S. (Syracuse University), Instructor in Education and Assistant Director of the Graduate School

Katherine Frances Lomax, A.B. (Brown University), M.A.T. (Boston College), Assistant Professor of English

Willis Norman Pitts, A.B. (Talladega College), M.A., Ph.D. (University of Michigan), Associate Professor of Speech and Theatre

Robert A. Rose, B.A. (Tufts University), M.A. (State University of New York), Instructor in English

Jean Frances Stonehouse, B.A. (Bridgewater State College), M.A. (Boston University), Instructor in History

Richard Jonathan Warye, B.Ed., M.A., Ph.D. (Ohio State University), Assistant Professor of Speech and Theatre

GENERAL INFORMATION

Bridgewater State College shares the national tradition of providing high quality education supported in large part by the State. Serving qualified students throughout the Commonwealth and particularly those living in the southeastern area, this college is committed to encouraging the broad educational preparation which is equally essential for making a maximum contribution to profession, community, and nation, and for developing a sound personal life. While maintaining its historical concern for preparing teachers, Bridgewater also dedicates itself to the education of students who may be interested in other vocations and professions.

Bridgewater strives to provide an atmosphere of integrity, justice, and social concern and to develop within the student a self discipline which will be evident beyond the classroom. In addition to stimulating his intellectual curiosity, Bridgewater State College also provides the student with the opportunity to understand and appreciate the major contributions to man's knowledge of himself and of the physical and social world in which he lives.

The College is located in the town of Bridgewater, a pleasant residential community located three miles from an expressway leading to major highways to New York, Boston, and Cape Cod. Motoring time to Boston is approximately 45 minutes; to New York, four and one-half hours; and to Cape Cod, one hour. Bus service to Boston is available.

ACADEMIC STANDING OF THE COLLEGE

The College holds membership in the New England Association of Colleges and Secondary Schools.

ADMINISTRATIVE ORGANIZATION OF PROGRAMS

The College conducts a day session for full-time undergraduates who have been matriculated for the degrees of Bachelor of Arts or Bachelor of Science in Education, as well as afternoon and evening programs for full and part-time undergraduate and graduate students. The latter programs are for students who wish to take courses for self improvement or certification, or for those who have been accepted for one of the following degree programs: Bachelor of Arts, Bachelor of Science in Education, Master of Arts, or Master of Education.

Information relative to undergraduate degree programs is obtained from the Dean of Undergraduate Studies.

Information relative to graduate degree programs is obtained from the Dean of the Graduate School.

Fall and spring courses offered after 5:00 p.m., and all Summer Session courses, are scheduled through the Division of Continuing Studies. Information and guidance relative to degree programs are not given through this Division.

ACADEMIC FACILITIES

Boyden Hall is located on the upper campus, between School and Grove Streets. Named for Albert Gardner Boyden, the third principal of Bridgewater State Normal School, and Arthur Clark Boyden, the first President of Bridgewater State Teachers College, it contains administrative and business offices, the Horace Mann Auditorium, classrooms, and offices for faculty members.

Burnell School, named after its second Principal, Martha Mae Burnell, is located on Grove Street, south of Boyden Hall. The school conducts classes from kindergarten through grade four. Students who are matriculated for the degree of Bachelor of Science in Education spend eight weeks observing and teaching classes at the Burnell School.

Conant Science Building is located on Park Avenue, on the lower campus. It is named for Marshall Conant, the second Principal of Bridgewater State Normal School, who was instrumental in expanding the scientific studies of this institution. The building contains the Departments of Biological Sciences, Chemistry, Earth Sciences and Geography, Mathematics, Physics, and Instructional Media.

Kelly Gymnasium is located on Park Avenue, on the lower campus. Named for Dr. John Joseph Kelly, who served as the third President of the College, it contains two gymnasia, an Olympic pool and other facilities for the Departments of Physical Education for Men and Women.

Maxwell Library is located north of Boyden Hall on School Street. The library was named for Dr. Clement Carpenter Maxwell, the fourth President of the College. The building, which serves as a temporary library pending construction of a new one, consists of a lower floor, containing the stacks and library offices; the main reading room; the Julia Carter room used for meetings; an upper floor, consisting of two classrooms for courses in library science; and a mezzanine containing student carrels. The library contains over 60,000 volumes, 539 scholarly journals, 2500 pamphlets, and 16 newspapers.

Stevens Greenhouse and Boyden Botanical Gardens are located on Park Avenue, on the lower campus between Pope Hall and the Conant Science Building. The facilities, which are managed by a horticulturist, are used by the Department of Biological Sciences for instruction and research.

The Student Union building, containing a student center, audi-

torium, and cafeteria, is located on Park Avenue opposite Pope Hall and the Conant Science Building.

STUDENT HOUSING

At present, dormitory housing is not available for graduate students but there are a number of approved off-campus houses available for students who wish to pursue a full-time graduate program. A list of available housing may be obtained by writing the Dean of Students.

SCHOLARSHIPS AND FELLOWSHIPS

There are, at present, no scholarships or fellowships for graduate students.

NATIONAL DEFENSE STUDENT LOANS

Eligibility

Graduate students who have been accepted by the Graduate School and are taking at least six semester hours of work per semester, are eligible to apply for N.D.S.L.

Students applying for such loans must present a letter to the Financial Aid Officer from the Dean of the Graduate School, attesting to their accepted status; and proof of registration for the required number of hours, from the Director of Continuing Studies or Academic Dean's Office.

Applications must be submitted prior to March 15th for the summer session and July 1st for the fall and spring terms.

Loan Amounts

Graduate students (with accepted status) may borrow up to a maximum of two thousand, five-hundred ($2,500.00) per year; the total amount borrowed for all degree programs, both undergraduate and graduate, may not exceed ten thousand dollars ($10,000.00).

The repayment period and interest begin nine months after a student has completed his program. Total payment is due 10 years and nine months after a student has completed his degree program. Interest is at the rate of three percent (3%) per year on the unpaid balance. Repayments may be deferred up to three years if the borrower is serving in the Armed Forces, the Peace Corps, or Vista.

Special Compensation for Teachers

As much as one-half of the loan may be forgiven if the borrower becomes a full-time teacher at any level. The amount of forgiveness is ten percent (10%) of the amount borrowed for each year of teaching, up to a maximum of five years. If the borrower teaches in eligible schools in low-income areas, the rate of forgiveness may be fifteen percent (15%) per year.

COUNSELING

Students may have problems and needs that require special forms of help or guidance. Among these are questions and concerns about their educational programs and academic achievement, housing, finances, health, social adjustment, part-time work, and placement.

To assist students in making adjustments, intelligent plans and wise decisions, the College has provided professional staff services in the major areas of student needs.

General

The faculty-student relationship is the center of college counseling, for faculty are best qualified to guide the student in his academic and professional growth. Each graduate student works closely with a faculty advisor from whom he receives help and guidance in the pursuit of his graduate program. Additional guidance by a professional counselor may be arranged through the office of the Dean of Students.

Religious

From its beginning, the State College at Bridgewater has been committed to a positive appreciation for the religious values in both our past history and contemporary culture. To emphasize the affirmative role of religion in the life and thought of this academic community, the Christian Fellowship, Menorah Club, and Newman Club have been formed to minister to those of the Protestant, Jewish, and Catholic faiths. A Christian Fellowship House and a Catholic Chapel and Center are located near the campus. Chaplains for Catholic and Protestant students have offices on campus and meet frequently with students for individual conferences, and with groups to provide religious counseling services.

HEALTH SERVICES

A hospital suite is located on the first floor of S. Elizabeth Pope Hall (Telephone ext. 386). Nursing services are available to all students of the college at all times. A doctor is on duty Mondays, Wednesdays, and Fridays from 8:00 a.m. to 12:00 noon.

STUDENT BOOKSTORE

The Student Bookstore, Inc. is located in the basement of Boyden Hall. The store has a drug and cosmetic rack, as well as supplies, souvenirs, textbooks, and leisure reading material.

The Bookstore is open weekdays from 8:15 A.M. to 4:00 P.M., and Monday through Thursday from 4:30 P.M. to 8:30 P.M.

Books may be paid for by cash or check. All checks should be made payable to: Student Bookstore, Inc., with the student's home

address appearing on the check. The store does not handle used books. Books may be returned to the store for the following reasons only:

1) Book is defective;
2) Course is dropped or cancelled before the fourth meeting of class (certified by the Director of Continuing Studies).

Returned books must be unmarked, in saleable condition, and accompanied by Bookstore sales receipt.

CHANGE OF NAME AND/OR ADDRESS

Students should notify the Office of the Graduate School immediately, by using the appropriate form, of any change in name or address. Failure to do this may cause unfortunate complications and delays which inconvenience students. Forms are available at the Office of the Graduate School.

MOTOR VEHICLE REGULATIONS

Students should secure a copy of the Traffic Control Regulations governing the use of motor vehicles. A parking decal (fee - $1.00) must be affixed to the left vent window of all motor vehicles on campus. Regulations and decal are obtainable at registration or at Campus Police Headquarters after registration.

SELECTIVE SERVICE

Information regarding Selective Service regulations and deferment may be obtained from the student's Selective Service Local Board.

TEACHER CERTIFICATION

Teacher certification is the responsibility of the State Department of Education. All inquiries relative to certification should be addressed to the Director, Bureau of Teacher Certification and Placement, 182 Tremont Street, Boston, Massachusetts, 02111.

PLACEMENT SERVICE

The Bridgewater State College Teacher Placement services are available to graduate students seeking positions in the field of education. Position vacancies are posted on the placement bulletin boards in Boyden Hall, and are contained in placement folders indexed on the basis of type of vacancy and geographical location. Interviews with prospective employers are initiated by candidates themselves.

OTHER COLLEGE POLICIES

Information or additional information concerning such matters as smoking, bulletin boards, vending machines, messages and library should be obtained at the time of registration.

DIVISION OF CONTINUING STUDIES

The Division of Continuing Studies schedules courses for undergraduate, graduate, and audit credit, as well as non-credit courses.

Most graduate students earn all of their credits in courses offered through the Division. It is essential, therefore, to obtain the Division's brochure prior to each term (fall, spring and summer). Information relative to course offerings, office hours, course registration, tuition and related matters will be found in this brochure.

The Office of the Division is located on the first floor of Boyden Hall. The office telephone numbers are 697-6141 and 697-6142.

THE GRADUATE SCHOOL

The Graduate School acts as a coordinating institution among the several departments engaged in graduate instruction. The Dean and the Graduate Committee, together with administrators and faculty, work toward the maintenance of uniform standards for higher degrees.

The primary aim of the Graduate School is to produce graduates who are not only competent in their major field, but are also aware of their professional and community responsibilities. Another major goal is to foster research on the part of both faculty and students. Every graduate student is given an opportunity to engage in original investigation under the direction of a member of the faculty.

The Graduate School offers programs leading to the degrees of Master of Arts in History and Biological Sciences, and Master of Education in Elementary Education, Elementary School Mathematics, Guidance, Health Education, Instructional Media, Reading, School Administration, School Librarianship, Special Education, and Secondary Education (with a concentration in a subject field).

OFFICE OF THE GRADUATE SCHOOL

The Office of the Graduate School, which is located in Room 211 of the Conant Science Building, is open from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for legal holidays, throughout the year.

Appointments with the Dean may be made by telephoning 697-6161 extension 301.

Conferences with Graduate School officials and departmental chairmen are difficult to arrange during Christmas and Spring vacations, in June prior to Summer Session registration, and between the close of Summer Session and registration for the September term. During these times all communication must be by mail or telephone. Information concerning such matters as acceptance, grades, and status with respect to comprehensive examinations will be released only by letter, not by telephone or in person.

Persons interested in working toward a master's degree should obtain a current copy of the Graduate School Catalogue. This Catalogue is published in August of each year and may be obtained at the Office of the Graduate School.

When an applicant has been accepted as a graduate student, his name is placed on a mailing list to receive the annual Catalogue. If a graduate student does not receive a Catalogue by September 1, he should notify the Graduate School Office.

Students are responsible for all information given in the latest edition of the Catalogue and also for any notices posted on the bulletin boards of the Graduate School and the Division of Continuing Studies, and the department in which the student is concentrating.

DEADLINES

Students are reminded to consult the annual Calendar of the Graduate School for deadlines and dates relative to admission, Graduate Record Examinations, Comprehensive Examinations, and filing applications for degrees.

COURSE SCEDULING

Most courses required for partial fulfillment of the requirements for the degrees of Master of Education and Master of Arts are scheduled by the Division of Continuing Studies. Classes are conducted afternoons and evenings, Monday through Thursday during the Fall and Spring Terms. Summer Session classes are also scheduled by the Division of Continuing Studies.

Full time enrollment (12 or more semester hours of work), requires formal notification to the Dean of the Graduate School. A limited number of full time graduate students who have been accepted in the Graduate School, may take some of their courses in the Day Session. Information about these courses and permission to enroll in them, may be obtained from the Dean of the Graduate School.

It is Graduate School policy that each student should take at least one course per fall and spring term. This is to ensure that

our facilities are used efficiently and that the student remains in contact with his field and makes progress in his degree program.

Students are limited to not more than six (6) semester hours of work during the summer session. Teachers in service, who are working toward their master's degrees, may not take more than six (6) semester hours of work in any given term.

GRADING SYSTEM

Graduate course achievement will be rated A, B, C, F, W-P (Withdrawn-Passing), W-F (Withdrawn-Failing), INC (Incomplete), or AU (Audit). A course in which part of the work is not completed for a valid reason will be recorded as INCOMPLETE, provided the student has arranged with the instructor before the end of the term to complete the assigned work. An incomplete course must be completed within 30 calendar days following the official close of the semester, or a grade of Failure will be recorded. Graduate students who receive grades of C or below in more than two courses must withdraw from the program unless special permission to continue is recommended by the adviser, the Graduate Committee and the Dean of the Graduate School. A student who is given a C grade in a graduate course may not take more than one graduate course in the following term without the written permission of his adviser. This letter of permission must be deposited in the Graduate School office prior to registration. A minimum grade of "B" is required for all courses in the area of concentration.

COMMENCEMENT

Candidates for the Master's degree who expect to fulfill all requirements for this degree in January, May, or August, should request the form, *Application for Degree* from the Graduate Office. This form should be completed and filed not later than the deadline indicated in the Calendar of the Graduate School. Failure to file before the deadline will postpone degree conferral.

Diplomas are awarded at the June Commencement and also during the months of February and August. Students who receive their diplomas in August or February should plan to attend the following June Commencement and wear appropriate academic regalia. Information relative to Commencement is sent to these students in May.

MASTER OF EDUCATION DEGREE PROGRAMS

The Master of Education is a professional degree designed for students planning careers in the elementary and secondary schools.

ADMISSION

Application

Students seeking admission to a program leading to the degree of Master of Education must hold a bachelor's degree from a four-

year institution of acceptable standing. College seniors may be admitted on a conditional basis.

Applicants should specify the degree program (and also the area of concentration for those interested in the M.Ed. in Secondary Education) when they request application forms. The Graduate School cannot send the appropriate application forms without this information. Applicants who, before admission, wish to change their proposed degree program or area of concentration must submit a written request as well as a new application form and new letters of reference.

Prerequisites

Each degree program requires the fulfillment of prerequisites. These may be general prerequisites for the degree, or they may be departmental prerequisites required to ensure adequate preparation in the area of concentration. Degree prerequisites and departmental prerequisites may be fulfilled after acceptance by the Graduate School. In addition, certain advanced courses require that the student have taken specified course prerequisites. Failure to do so may result in the loss of any credit earned in such courses.

Application Documents Required for Admission to Master of Education Programs

1. A formal application, in duplicate. Application forms may be obtained from the Graduate Office.

2. Two recommendations, in duplicate, which indicate an estimate of the applicant's ability to successfully pursue a graduate program in his proposed field of concentration. Only recommendations from members of a college faculty who have taught a candidate at the collegiate level are acceptable. Forms for recommendations are available at the Graduate Office. Only recommendations submitted on these forms will be considered in evaluating a candidate. The recommendations must be sent directly to the Dean of the Graduate School by the reference.

3. The results of the Aptitude Test of the Graduate Record Examination. The applicant must arrange to have his scores sent from the Educational Testing Service directly to the Dean of the Graduate School. Photocopies of scores, and scores submitted by the applicant, are not acceptable. The Educational Testing Service will provide transcripts of test scores only until September 30 following the fifth anniversary of the test date. If test scores are unobtainable, it will be necessary to take the Graduate Record Examination again. Application forms and information relative to the GRE may be obtained from the Graduate Office. Since there is up to six weeks delay between the test date and the receipt of scores, applicants should take the test well in advance of the Graduate School's deadline for receipt of com-

pleted applications. (See the Graduate School Calendar.)

4. Two copies of the official transcript of the applicant's undergraduate college record, bearing the seal of the college. The transcripts must be sent by the college registrar directly to the Dean of the Graduate School. Applicants who have attended more than one undergraduate college, or have completed course work beyond the bachelor's degree, should arrange to have duplicate transcripts of all of their course work from each college attended sent directly to the Dean of the Graduate School.

   Graduates of Bridgewater State College should request the College Registrar to send transcripts to the Graduate Office. Applicants currently enrolled in the Division of Continuing Studies should request the Division to send their transcripts to the Graduate Office.

5. The forms, *Petition for Acceptance of Degree Prerequisites* and *Petition for Acceptance of Graduate Courses taken prior to Admission,* obtainable from the Graduate School Office. Students and advisers will be apprised of the action taken. Applicants who have not completed any degree prerequisites or graduate courses should submit a blank form, signed and dated.

AN APPLICATION IS NOT COMPLETE, AND NO APPLICANT WILL BE CONSIDERED FOR ADMISSION, UNLESS ALL OF THE ABOVE DOCUMENTS HAVE BEEN RECEIVED BY THE DEAN OF THE GRADUATE SCHOOL ON OR BEFORE THE APPROPRIATE DEADLINE DATE. IT IS THE OBLIGATION OF THE STUDENT TO MAKE CERTAIN THAT HIS APPLICATION DOCUMENTS ARE RECEIVED IN TIME.

One month after receiving the formal application, and monthly for three months thereafter (time permitting) a notice is sent to applicants listing the documents that have not been received. Applicants will be notified when their application folders are complete. All transcripts and other documents submitted become the property of the Graduate School and will not be returned.

Applicants should check the Calendar of the Graduate School relative to deadlines for submitting completed applications. Completed applications received after a deadline will be considered at the next admission date.

Action By The Academic Department

The Dean of the Graduate School sends all completed applications to the academic department in which the applicant proposes to take his concentration. Departments are asked to make their recommendations to the Graduate Committee in May and December of each year.

Action By The Graduate Committee

The Graduate Committee meets in May and December of each year to consider completed applications.

The Committee, after examining each applicant's credentials and the academic department's evaluation, makes its recommendations to the Dean of the Graduate School. The Committee may recommend:

1) That the applicant be admitted as a candidate for a master's degree.

2) That the applicant be admitted as a probationary student and that he be reconsidered for admission to candidacy for the degree after the satisfactory completion of fifteen semester hours of graduate work. A probationary student should file a form, *Petition for Removal of Probationary Status,* when he has completed fifteen semester hours of graduate work with a grade of "B" or better in each course. Only courses taken after admission to a graduate degree program at Bridgewater State College may be counted as part of the fifteen hours.

3) That the applicant be admitted conditionally pending the receipt of a baccalaureate. A college senior, who is admitted to the program on condition, should request his college to forward a complete transcript as soon as possible.

4) That the applicant not be admitted.

The successful completion of graduate courses before application shall not obligate the academic department or the Graduate Committee to recommend an applicant for acceptance.

Action By The Dean Of The Graduate School

The Dean, after reviewing the recommendations of the academic department and the Graduate Committee, makes the final decision, and notifies the applicant. At the same time the Dean sends the candidate's name to the chairman of the department in which he proposes to concentrate. The chairman assigns an adviser and the Graduate School sends the name of the adviser to the candidate. The Graduate School also sends the candidate and his adviser copies of the form, *Record of Graduate Program.*

It is important that the candidate telephone his adviser at the college and make an appointment for planning his program. At the first meeting with his adviser, the candidate should bring his copy of the *Record of Graduate Program.* The student should bring his copy of the *Record of Graduate Program* to every conference with his adviser. Program planning conferences should be arranged well in

advance of each term. The adviser's copy is sent to the Graduate School when the candidate applies for his degree.

CHANGES IN PROGRAM

A student wishing to change his area of concentration must: 1) petition the Graduate Committee in writing, through the Dean of the Graduate School; 2) file a new formal application; and 3) submit new references appropriate to the new area. Petitions are required for other program changes. The student and his adviser will be informed of the Committee's action. Letters of petition must be filed in the Graduate School Office at least one week prior to the monthly meeting of the Graduate Committee. Meeting dates are posted on the Graduate School Bulletin Board.

MATRICULATION

Admission to the Graduate School does not imply automatic Matriculated Status. Upon the recommendation of the adviser and the chairman of the department, a candidate accepted by the Graduate School who has successfully completed all degree prerequisites (with the exception of student teaching) and has earned at least six semester hours of approved graduate credit, may be admitted to Matriculated Status. The form *Petition to be Admitted to Matriculated Status* may be secured in the Graduate Office and should be submitted by the student to his adviser and departmental chairman. The completed form should be filed by the student in the Graduate School Office.

GENERAL REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

General requirements for the degree shall be a minimum of thirty-three semester hours of graduate credit, or thirty semester hours of graduate credit and a thesis, unless otherwise indicated. Students who do a thesis should request the brochure entitled *The Master's Thesis* from the Office of the Graduate School.

Graduate students follow those regulations which were in effect at the time of their acceptance. They may, however, be required to meet any additional standards, which the College establishes to conform with current graduate school practice. Such changes will be published in the Catalogue and/or posted on the bulletin boards of both the Graduate School and the Division of Continuing Studies. Failure to acquaint oneself fully with the current regulations may cause unfortunate complications for which the student must accept full responsibility.

Students who have taken appropriate graduate courses, at either Bridgewater State College or at some other approved graduate school, prior to acceptance, may request that up to six semester hours, of grade "B" or better, be accepted in partial fulfillment of degree requirements. A form entitled *Petition for Acceptance of Graduate Courses Taken Prior to Acceptance* should be obtained from and filed with the Graduate School. This form should be submitted

with the student's application for admission. If the student is admitted, the Graduate School will notify him and his adviser of the graduate courses which have been accepted, by recording them on the *Record of Graduate Program.*

After acceptance, a maximum of six hours of grade "B" or better, taken at an approved graduate school, with the written approval of the adviser, may be transferred unless the student has already transferred such credits from courses taken prior to acceptance. In no case may more than a total of six appropriate hours be transferred from other graduate schools. Two copies of a transcript of such courses taken must be sent directly to the Bridgewater State College Graduate School.

All courses taken after acceptance, in partial fulfillment of degree requirements, must have the approval of the adviser and be recorded on the *Record of Graduate Program.*

All requirements for the degree must be completed within six years from the date of acceptance. No graduate course offered for the degree may be more than six years old when degree requirements are completed.

COMPREHENSIVE EXAMINATION

While students are expected to make satisfactory progress in their course work, the accumulation of credit hours is not regarded as the sole index of a student's progress or as a guarantee that he will be granted a degree. Each degree candidate must give evidence that he can integrate information and ideas from the various areas in which he is studying. The principal instrument for measuring this achievement is the Comprehensive Examination. This Examination may be written and/or oral, and will be based upon the area of concentration and related fields as indicated under Degree Requirements for the specific degree. Only matriculated students may take the Comprehensive Examination.

A candidate who plans to take the Comprehensive Examination should file the form entitled, *Request to Take the Comprehensive Examination.* This form should be completed and filed in the Graduate Office not later than the deadline indicated in the Calendar of the Graduate School. This Examination must be taken when a candidate is in the last term of degree work or after the completion of all course work. A candidate who fails a Comprehensive Examination shall be given only one further opportunity to take it. Those who take the Comprehensive Examination will be notified of the results by mail.

Students accepted prior to January 17, 1966, will be given a written Comprehensive Examination in the areas of Guidance, Philosophy, and Psychology. The dates for these examinations are published in the Calendar of the Graduate School.

Students accepted after January 16, 1966, will be given a written and/or oral examination in their area of concentration and specified related areas. These examinations are given during the months of November, April, and July.

STUDENT TEACHING

A graduate student, matriculated for the degree of Master of Education, who plans to fulfill the prerequisite of student teaching, should observe the following procedures:

1. A student who meets the minimum subject matter requirements for certification in Massachusetts, is eligible to student teach when he has completed all degree prerequisite courses and at least 24 semester hours of approved graduate course work. The student shall request the Graduate School to certify his eligibility by letter to the Director of Teacher Education and Placement.

2. An application form entitled, *Application for Off-Campus Student Teaching in the Public Schools* should be obtained from the Office of the Director of Teacher Education and Placement in Boyden Hall.

3. The student should complete the application and file it with the Division of Continuing Studies at least ninety days prior to the beginning of student teaching.

4. The student must register for the course, ED 492 (Supervised Teaching in the Public Schools U), through the Division of Continuing Studies, after his application has been approved.

DEGREE PROGRAMS

The following programs leading to the degree of Master of Education have been developed by the appropriate faculties and the Graduate Committee. A student should not take any graduate courses, other than those listed under Required Courses, without approval of his faculty adviser.

All degree work must be completed within six years from the date of acceptance.

All graduate credits offered in partial fulfillment of degree requirements must have been earned not more than six years prior to completion of the degree program.

MASTER OF EDUCATION IN ELEMENTARY EDUCATION

Required Courses (15 S.H.)	S.H.
ED 430 Principles & Practices of Guidance	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles & Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3

Required Elementary Education Courses (6 S.H.)	
ED 450 Elementary School Curriculum	3
ED 554 Seminar in Elementary Education	3

Elective Courses (12 S.H.)

Twelve hours will be elected from Elementary Methods and Materials or from subject fields. These will be chosen, at the discretion of the adviser, in keeping with professional goals, experience, and courses already taken prior to matriculation.

Basic courses recommended for those candidates with little or no knowledge of elementary education include:

	S.H.
ED 330 Teaching Reading in the Elementary School	3
ED 340 Methods and Materials in Elementary Language Arts	3
ED 350 Methods and Materials in Elementary Mathematics	3
ED 460 Methods and Materials in Elementary Science	3
ED 470 Methods and Materials in Elementary Social Studies	3

Candidates with an undergraduate major in elementary education, or with several years of elementary experience and course work, may choose, with the adviser's approval, from among a variety of courses closely related to elementary education, including advanced education courses. The following are examples of appropriate courses:

AR 380 General Crafts*	3
AR 391 History of Art	3
AV 450 Techniques and Media of Audiovisual Instruction*	3
AV 452 Science of Photography in Education	3
ED 332 Diagnosis and Correction of Reading Difficulties	6
ED 360 Methods and Materials in Elementary Music*	3
ED 362 Methods and Materials in Elementary Art*	3
ED 402 Team Teaching	3
ED 415 Methods and Materials for the Gifted Learner	3
ED 416 Teaching the Slow Learner	3
ED 543 Improving Reading Instruction	3
EN 300 History and Structure of the English Language	3

		S.H.
ES 252	Geography of Anglo-America	3
ES 301	Astronomy	3
ES 502	Conservation of Natural Resources	3
PE 370	The Theory and Practice of Physical Education in Elementary Schools	3
HE 455	First Aid	3
HE 465	School Health Program	3
HE 495	Health Problems	3
LI 310	Books for Children	3
LI 450	An Introduction to the Library	3
LI 451	Storytelling	3
MA 351	Modern Mathematics for Elementary School Teachers I	3
MA 352	Modern Mathematics for Elementary School Teachers II	3
MA 353	Modern Algebra for Elementary School Teachers	3
MA 354	Modern Geometry for Elementary School Teachers	3
MA 355	Probability and Statistics for Elementary School Teachers	3
MU 400	Creative Activities in Elementary School Music	3
ST 290	Speech Correction I	3
ST 330	Creative Dramatics	3
ST 370	Play Production	3
ST 400	Advanced Oral Communication	3
ST 412	Phonetics	3
	Total	33

*These courses may be elected by a candidate who has not taken an equivalent course as an undergraduate. All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include three semester hours in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Elementary Education and in any or all of the following related areas: Guidance, Curriculum, Psychology, Administration, and Philosophy.

MASTER OF EDUCATION IN ELEMENTARY SCHOOL MATHEMATICS

Required General Education Courses (15 S.H.)	S.H.
ED 450 Elementary School Curriculum	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles and Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3

Required Mathematics Courses (15 S.H.)	
MA 353 Modern Algebra for Elementary School Teachers	3
MA 354 Modern Geometry for Elementary School Teachers	3
ED 350 Methods and Materials in Elementary Mathematics	3
ED 351 Improving Mathematics Instruction in the Elementary School	3
ED 550 Practicum in the Elementary School Mathematics Program	3-6

Elective Courses*

Elect 3 S.H. from the following:

MA 355 Probability and Statistics for Elementary School Teachers	3
MA 356 Calculus for Elementary School Teachers	3
ED 561 Elementary School Administration	3
ED 564 Public School Supervision	3
Total	33

*All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include 3 semester hours in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education
MA 351 Modern Mathematics for Elementary School Teachers I
MA 352 Modern Mathematics for Elementary School Teachers II

One full semester of successful classroom teaching experience at the elementary level in an accredited public or private school.

or

One-half semester of successful student teaching at the elementary level and under college supervision.

Comprehensive Examination

Candidates must pass a comprehensive examination in Elementary School Mathematics and its Instruction and in any or all of the related areas of Curriculum, Psychology, and Philosophy.

MASTER OF EDUCATION IN GUIDANCE

Required General Education Courses (15 S.H.)	S.H.
ED 443 Secondary School Curriculum or	3
ED 450 Elementary School Curriculum #	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles & Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3
Required Guidance Courses (9 S.H.)	
ED 430 Principles and Practices in Guidance	3
ED 530 Counseling Theory and Practice	3
ED 534 Occupational and Educational Information	3
Elective Courses - Nine Hours From:*	
PY 227 Psychology of Exceptional Children	3
ED 531 Organization and Administration of Guidance Programs	3
ED 532 Practicum in Counseling	3
ED 533 Psychological Tests in Guidance	3
ED 535 Principles and Practices in Placement	3
Total	33

*All electives must have prior approval of the adviser
#Elementary Guidance requires ED 450; Secondary Guidance requires ED 443.

Prerequisites

Prerequisites for this degree include three semester hours in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development or
PY 226 Adolescent Psychology #
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education

#Elementary Guidance requires PY 224; Secondary Guidance requires PY 226.

One year of successful teaching, at the appropriate level, in an accredited public or private school.

Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Guidance and in any or all of the following related areas: Curriculum, Psychology, Administration, and Philosophy.

MASTER OF EDUCATION IN HEALTH EDUCATION

Required General Education Courses (12 S.H.)	S.H.
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles and Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3
Required Health Education Courses (9 S.H.)	
HE 465 School Health Program	3
HE 495 Health Problems	3
HE 590 Seminar in Health Education	3
Elective Courses* (12 S.H.)	
Two to four of the following courses may be taken:	
HE 475 Community Health Education	3
HE 385 Nutrition and Fitness	3
HE 499 Sex and Family Living Education	3
HE 485 Methods in Health Education	3
Two of the following courses may be taken:	
PY 227 Psychology of Exceptional Children	3
ED 443 Secondary School Curriculum	3
ED 410 Introduction to Special Education	3
ED 450 Elementary School Curriculum	3
SO 411 Types of Asocial Personalties I	3
BI 300 Biochemistry	3
BI 381 Animal Physiology	3
BI 395 Microbiology	3
(Other electives will be considered upon request)	
	Total 33

*All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include 3 semester hours in each of the following:

HE 151 Personal and Community Health
PY 200 General Psychology
ED 480 Philosophy of Education
PY 224 Child Growth and Development or
PY 226 Adolescent Psychology
3 additional hours in Health Education

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Health Education and related fields.

MASTER OF EDUCATION IN INSTRUCTIONAL MEDIA

The M.Ed. program in Instructional Media has as its purpose the meeting of school system needs brought about by the great advances in the use of educational technology and materials in teaching.

Required General Education Courses (9 S.H.)	S.H.
ED 500 Research & Evaluation	3
ED 520 Psychological Foundations of Education or	3
ED 580 Philosophical Foundations of Education	3
ED 560 Principles and Practices in School Administration	3

Required Instructional Media Courses (18 S.H.)	
AV 450 Techniques & Media of Audiovisual Instruction	3
AV 452 Science of Photography in Education	3
AV 453 School Public Relations	3
AV 456 Radio and TV Studio Operation & Control	3
AV 460 Graphics for Instructional Media	3
AV 464 Management of an Instructional Media Department	3

Electives: Elect 6 S.H. from the following:*	
AV 420 Advanced Audiovisual Education	3
AV 457 Advanced Photography Techniques	3
AV 458 Radio & TV Production	3
AV 454 Script Writing Techniques for Radio & TV	3
	Total 33

*All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include three semester hours in each of the following:

ST 400 Advanced Oral Communication
EN 280 Journalism
PY 200 General Psychology

PY 224 Child Growth and Development or
PY 226 Adolescent Psychology or
PY 510 Seminar: Clinical Psychology
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education
ED 443 Secondary School Curriculum or
ED 450 Elementary School Curriculum

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, under college supervision.

Comprehensive Examination

Candidates must pass a comprehensive written examination in all areas of instructional media theory. Students will also have to perform operational techniques in the radio station and in the TV studio.

MASTER OF EDUCATION IN READING

Required General Education Courses (12 S.H.)	S.H.
ED 443 Secondary School Curriculum or	3
ED 450 Elementary School Curriculum #	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 580 Philosophical Foundations of Education	3
Required Reading Courses (12 S.H.)	
ED 332 Diagnosis and Correction of Reading Difficulties	6
ED 543 Improving Reading Instruction	3
ED 544 Seminar in Reading and Language	3

Elective Courses for Reading Specialists (9 S.H.)*

Each candidate will round out his specialization with nine hours of appropriate course work selected at the discretion of the adviser in keeping with professional goals, experience, and courses already taken. Choices will be made from the following fields:

Administration and Supervision
Educational Methods and Materials
Linguistics
Psychology and Measurement
Oral Communication and Speech

Candidates must submit a major paper as part of the requirements for the seminar in Reading and Language Arts.

Total 33

*All electives must have prior approval of the adviser.
#ED 443 with PY 226 and ED 331; ED 450 with PY 224 and ED 330.

Prerequisites:

Prerequisites for this degree include three semester hours credit in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development or
PY 226 Adolescent Psychology
ED 330 Teaching Reading in the Elementary School or
ED 331 Developmental Reading in the Secondary School
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Reading Instruction and Remedial Procedures and in any or all of the following related areas: Curriculum, Psychology, and Philosophy.

MASTER OF EDUCATION IN SCHOOL ADMINISTRATION

The concentration in Administration is for persons wishing to prepare for school administration at the level of elementary or secondary principalships (including assistant principals and department heads) and also as a beginning experience for school district office administrators.

It is to be understood that further work beyond this degree would be required for preparation for superintendencies and other specialized administrative areas. The latter might include curriculum directors and assistant superintendents with special responsibilities for business management, school plant, personnel, and pupil services.

Required General Education Courses (15 S.H.)	S.H.
ED 430 Principles and Practices in Guidance	3
ED 443 Secondary School Curriculum or	3
ED 450 Elementary School Curriculum	3

	S.H.
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 580 Philosophical Foundations of Education	3

Required Administration Courses (9 S.H.)

ED 560 Principles and Practices in School Administration	3
ED 561 Elementary School Administration or	3
ED 562 Secondary School Administration	3
ED 568 Seminar in Problems of School Administration	3

Elective Administration Courses* (9 S.H.)
At least six semester hours from:

ED 563 Personnel Administration in Public Schools	3
ED 564 Public School Supervision	3
ED 565 School Finance and Business Management	3
ED 566 School Plant Administration	3

Three semester hours may be approved from:

ED 567 Administration of the School Activity Program	3
ED 569 Legal Aspects of School Administration	3
ED 570 Federal Assistance to American Education	3
ED 404 Fundamentals of Data Processing	3
AV 453 School Public Relations	3
HM 426 Management of Athletics	3
	Total 33

*All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include three semester hours in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development (Elementary Administration) or
PY 226 Adolescent Psychology (Secondary Administration)
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education

One year of successful teaching, at the appropriate level, in an accredited public or private school.

Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of School Administration and in any or all of the following related areas: Guidance, Curriculum, Psychology, and Philosophy.

MASTER OF EDUCATION IN SCHOOL LIBRARIANSHIP

The Master of Education in School Librarianship Program prepares its candidates for the dual role as a librarian and as a teacher. Professional achievement in both areas is required.

Required Courses (12 or 15 S.H.)	S.H.
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education or	3
ED 580 Philosophical Foundations of Education	3
Depending on the student's background and upon the recommendation and approval of the adviser.	
ED 560 Principles and Practices in School Administration	3
LI 595 Practicum	3 or 6
This Practicum may be taken for 3 or 6 semester hours credit depending on the student's background and upon the recommendation and approval of the adviser.	

Elective Courses* (18 or 21 S.H. from:)	
LI 310 Books for Children #	3
LI 320 Books for Young Adults #	3
LI 370 Reference Materials and Their Use #	3
LI 430 School Library Administration #	3
LI 440 Cataloguing and Classification #	3
LI 446 Technical Services	3
LI 450 An Introduction to the Library	3
LI 451 Storytelling	3
LI 452 Selection of Library Materials	3
LI 464 Use and Organization of Non-print Materials	3
LI 548 Advanced Cataloguing and Classification	3
LI 553 The History of Libraries	3
LI 566 Systems Approach to Libraries	3
LI 569 The Book Arts	3
LI 576 Research Problems in Library Literature	3
LI 590 Seminar on School Librarianship	3
Total	33

*All electives must have prior approval of the adviser.
#Basic courses required for Massachusetts School Librarian Certification.

Of the 18 or 21 semester hours electives, a maximum of 6 semester hours may be taken in related fields upon the recommendation and approval of the adviser.

Prerequisites

Prerequisites for this degree include 3 semester hours in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development or

PY 226 Adolescent Psychology
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

Comprehensive Examination

Candidates must pass an oral or written Comprehensive Examination in the general field of School Librarianship and in any or all of the following related areas: Guidance, Curriculum, Psychology, and Philosophy.

MASTER OF EDUCATION IN SECONDARY EDUCATION

Required Education Courses (18 S.H.)	S.H.
ED 430 Principles and Practices in Guidance	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles and Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3
ED Teaching (Concentration) in the Secondary School	3

Elective Courses - A Concentration of Fifteen Hours in One of the Following Fields:*

Biological Sciences	Humanities
Chemistry	Mathematics
Earth Sciences	Modern Foreign Languages
English	Physical Sciences
Geography	Physics
History	Social Sciences

Total 33

*All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include three semester hours in each of the following:

PY 200 General Psychology
PY 226 Adolescent Psychology
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education
ED 443 Secondary School Curriculum

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

Comprehensive Examination

Candidates must pass a comprehensive examination in their academic field, e.g., English, History, Physics, etc. and Methods in this field, as well as in any or all of the following related areas: Guidance, Psychology, Administration, and Philosophy.

MASTER OF EDUCATION IN SPECIAL EDUCATION

Required General Education Courses (15 S.H.)	S.H.
ED 430 Principles and Practices in Guidance	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles and Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3

Required Special Education Courses (9 S.H.)	
PY 228 The Psychology of Mental Retardation	3
ED 410 Introduction to Special Education	3
ED 411 Methods and Materials in Special Education	3

Elective Courses - Three Hours From Each of The Following Groups - Total Nine Hours*

Group A	
ST 290 Speech Correction I	3
ED 415 Methods and Materials for the Gifted Learner	3
ED 416 Teaching the Slow Learner	3
ED 417 Methods in Teaching Emotionally Disturbed Children	3
ED 543 Improving Reading Instruction	3

Group B	
ED 412 Organization and Administration of Special Education	3
ED 413 Industrial Arts in Special Education	3
ED 414 Domestic Arts in Special Education	3

Group C

PY 227	Psychology of Exceptional Children	3
PY 229	Abnormal Psychology	3
ED 418	Etiology, Dynamics and Treatment of Emotional Disturbance in Children	3
ED 419	Workstudy Program in Special Education	3
ED 522	Measurement of Intelligence (Binet)	3
ED 524	Measurement of Intelligence (WAIS and WISC)	3
	Total	33

*All electives must have prior approval of the adviser.

Prerequisites

Prerequisites for this degree include 3 semester hours in each of the following:

PY 200 General Psychology
PY 224 Child Growth and Development or
PY 226 Adolescent Psychology
ED 362 Methods and Materials in Elementary Art or
AR 380 General Crafts
PL 380 Introduction to General Philosophy
ED 420 Educational Measurement
ED 480 Philosophy of Education

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

Comprehensive Examination

Candidates must pass a Comprehensive Examination in the general field of Special Education and in any or all of the following related areas: Psychology, Guidance, Administration, and Philosophy.

MASTER OF ARTS DEGREE PROGRAMS

The Master of Arts degree programs are intended to prepare students for such areas as teaching, research, industry, and advanced graduate study. Departments offering this degree offer programs tailored to the individual candidate's preparation, research interests, and career objectives. The candidate is advised to consult the departmental chairman and departmental catalog material for the specific prerequisites and available options in each degree program.

ADMISSION

Application

Students seeking admission to a program leading to the degree of Master of Arts must hold a bachelor's degree from a four-year institution of acceptable standing. College seniors may be admitted on a conditional basis.

Applicants should specify the degree program (Biology or History) when they request application forms. The Graduate School cannot send the appropriate application forms without this information.

Prerequisites

Each degree program requires the fulfillment of certain prerequisites. These may be general prerequisites for the degree, or they may be departmental prerequisites required to ensure adequate preparation in the area of concentration. Degree prerequisites and certain departmental prerequisites may be fulfilled after acceptance by the Graduate School. In addition, certain advanced courses require the student to have taken specified course prerequisites. Failure to do so may result in the loss of any credit earned in such courses.

Application Procedures Required for Admission to Master of Arts Program

1. A formal application, in duplicate. Application forms may be obtained from the Graduate Office.

2. Two recommendations, in duplicate, which indicate an estimate of the applicant's ability to successfully pursue a graduate program in his proposed field of concentration. Only recommendations from members of a college faculty who have taught a candidate at the collegiate level in that concentration are acceptable. Forms for recommendations are available at the Graduate Office. Only recommendations submitted on these forms will be considered in evaluating a candidate. The recommendations must be sent directly to the Dean of the Graduate School by the references.

3. The results of the Aptitude Test and the appropriate Advanced Test of the Graduate Record Examination. The applicant must arrange to have his scores sent from the Educational Testing Service directly to the Dean of the Graduate School. Photocopies of scores, and scores submitted by the applicant, are not acceptable. The Educational Testing Service will provide transcripts of test scores only until September 30 following the fifth anniversary of the test date. If test scores are unobtainable, it will be necessary to take the Graduate Record Examination again. Application forms and information relative to the GRE may be obtained from the Graduate Office. Since there is up to six weeks delay between the test date and the receipt of scores, applicants should take the tests well in advance of the Graduate School's deadline for receipt of completed applications. (See the Graduate School Calendar.)

4. Two copies of the official transcript of the applicant's undergraduate college record, bearing the seal of the college. The transcripts must be sent by the college registrar directly to the Dean of the Graduate School. Applicants who have attended more than one undergraduate college, or have completed course work beyond the bachelor's degree, should arrange to have duplicate transcripts of all of their course work from each college attended sent directly to the Dean of the Graduate School. Graduates of Bridgewater State College should request the College Registrar to send transcripts to the Graduate Office. Applicants currently enrolled in the Division of Continuing Studies should request the Division to send their transcripts to the Graduate Office.

5. The form *Petition for Acceptance of Graduate Courses Taken Prior to Acceptance,* available from the Graduate Office. The Graduate School will evaluate the petition and apprise the student of its action. Applicants who have not completed any appropriate graduate courses should submit a blank form, signed and dated.

6. A conference with the Chairman of the Department in which the applicant plans to major.

AN APPLICATION IS NOT COMPLETE, AND NO APPLICANT WILL BE CONSIDERED FOR ADMISSION, UNLESS ALL OF THE ABOVE PROCEDURES HAVE BEEN COMPLETED AND THE DOCUMENTS HAVE BEEN RECEIVED BY THE DEAN OF THE GRADUATE SCHOOL ON OR BEFORE THE APPROPRIATE DEADLINE DATE. IT IS THE OBLIGATION OF THE STUDENT TO MAKE CERTAIN THAT HIS APPLICATION DOCUMENTS ARE RECEIVED IN TIME.

One month after receiving the formal application, and monthly for three months thereafter (time permitting) a notice is sent to applicants listing the documents that have not been received. Applicants will be notified when their application folders are com-

plete. All transcripts and other documents submitted become the property of the Graduate School and will not be returned.

Applicants should check the Calendar of the Graduate School relative to deadlines for submitting completed applications. Completed applications received after a deadline will be considered at the next admission date.

Action By The Academic Department

The Dean of the Graduate School sends all completed applications to the academic department in which the applicant proposes to take his concentration. Departments are asked to make their recommendations to the Graduate Committee in May and December of each year.

Action By The Graduate Committee

The Graduate Committee meets in May and December of each year to consider completed applications.

The Committee, after examining each applicant's credentials and the academic department's evaluation, makes its recommendations to the Dean of the Graduate School. The Committee may recommend:

1. That the applicant be admitted as a candidate for a master's degree.

2. That the applicant be admitted as a probationary student and that he be reconsidered for admission to candidacy for the degree after the satisfactory completion of fifteen semester hours of graduate work at Bridgewater. A probationary student should file a form, *Petition for Removal of Probationary Status,* when he has completed fifteen semester hours of graduate work with a grade of "B" or better in each course. Only courses taken after admission to a graduate degree program at Bridgewater State College may be counted as part of the fifteen hours.

3. That the applicant be admitted conditionally pending the receipt of a baccalaureate. A college senior, who is admitted to the program on condition, should request his college to forward a complete transcript as soon as possible.

4. That the applicant not be admitted.

The successful completion of graduate courses before application shall not obligate the academic department or the Graduate Committee to recommend an applicant for acceptance.

Action By The Dean Of The Graduate School

The Dean, after reviewing the recommendations of the academic

department and the Graduate Committee, makes the final decision, and notifies the applicant. At the same time the Dean sends the candidate's name to the chairman of the department in which he proposes to concentrate.

The Adviser

The chairman of the academic department assigns the candidate an adviser on the basis of his research interests, and the Graduate School sends the name of the adviser to the candidate. It is important that the candidate telephone his adviser at the college and make an appointment for planning his program. The Graduate School also sends the candidate and his adviser copies of the form *Record of Graduate Program*. At his first meeting with his adviser, and at every meeting thereafter, the candidate should bring his copy of the *Record of Graduate Program*. Program planning conferences should be arranged well in advance of the beginning of each term. The adviser's copy of the *Record of Graduate Program* is sent to the Graduate School when, at the conclusion of the program, the candidate applies for his degree.

MATRICULATION

Admission to the Graduate School does not imply automatic matriculated status.

Preliminary Examination

When an accepted graduate student has completed at least, but not more than, 18 semester hours of graduate work in his field at Bridgewater State College with grades of "B" or better; and has satisfactorily completed the departmental prerequisites; he must file in the Graduate School Office the form *Request to Take the Preliminary Examination*. This examination may be written and/or oral. Its purposes are to determine the degree of skill achieved in relating and integrating graduate work completed to date, to ascertain the readiness of the student for advanced graduate work, and to enable the adviser to plan the remainder of the student's program in terms of his needs. No more than eighteen semester hours of graduate work completed at Bridgewater prior to satisfactory performance on the Preliminary Examination may be accepted for the degree.

The Graduate School will apprise the student of his performance on the Preliminary Examination. Unsatisfactory performance may require the student to take additional course work in the major and/or related subjects, followed by a reexamination. If the student fails to perform satisfactorily a second time, he will be dropped from the degree program.

Admission to Matriculated Status

After he has passed the Preliminary Examination the student

must obtain the form *Petition to be Admitted to Matriculated Status* from the Graduate Office and submit it to his adviser and departmental chairman. The completed form should be filed by the student in the Graduate School Office.

GENERAL REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

General requirements for the degree shall be a minimum of thirty semester hours of approved graduate credit, a reading knowledge of one foreign language specified by the department, and a thesis approved by the department. Unless the department permits otherwise, a student must satisfactorily complete a minimum of 18 semester hours of approved graduate work in the field of his specialization. Unless otherwise indicated by the major department, a maximum of 10 semester hours of graduate credit may be allowed for the thesis. Each student must enroll in the Thesis course listed under the appropriate department. Students should request the brochure entitled *The Master's Thesis* from the Office of the Graduate School.

Graduate students follow those regulations which were in effect at the time of their acceptance. They may, however, be required to meet any additional standards, which the College establishes to conform with current graduate school practice. Such changes will be published in the Catalogue and/or posted on the bulletin boards of both the Graduate School and the Division of Continuing Studies. Failure to acquaint oneself fully with the current regulations may cause unfortunate complications for which the student must accept full responsibility.

Students who have taken appropriate graduate courses, at either Bridgewater State College or at some other approved graduate school, prior to acceptance, may request that up to six semester hours, of grade "B" or better, be accepted in partial fulfillment of degree requirements. A form entitled *Petition for Acceptance of Graduate Courses Taken Prior to Acceptance* should be obtained from and filed with the Graduate School. This form should be submitted with the student's application for admission. If the student is admitted, the Graduate School will notify him and his adviser of the graduate courses which have been accepted, by recording them on the *Record of Graduate Program.*

After acceptance, a maximum of six hours of grade "B" or better, taken at an approved graduate school, with the written approval of the adviser, may be transferred unless the student has already transferred such credits from courses taken prior to acceptance. In no case may more than a total of six appropriate hours be transferred from other graduate schools. Two copies of a transcript of such courses taken must be sent directly to the Bridgewater State College Graduate School.

All courses taken after acceptance in partial fulfillment of degree requirements must have the approval of the adviser and be recorded on the *Record of Graduate Program*.

All requirements for the degree must be completed within six years from the date of acceptance. No graduate course offered for the degree may be more than six years old when degree requirements are completed.

Comprehensive Examination

While students are expected to make satisfactory progress in their course work, the accumulation of credit hours is not regarded as the sole index of a student's progress or as a guarantee that he will be granted a degree. Each degree candidate must give evidence that he can integrate information and ideas from the various areas in which he is studying. The principal instrument for measuring this achievement is the Comprehensive Examination. This examination may be written and/or oral, and will be based upon the area of concentration and related fields as indicated under Degree Requirements for the specific degree. Only matriculated students may take the Comprehensive Examination.

A candidate who plans to take the Comprehensive Examination should file the form entitled *Request to Take the Comprehensive Examination*. This form should be completed and filed in the Graduate Office not later than the deadline indicated in the Calendar of the Graduate School. This examination must be taken when a candidate is in the last term of degree work or after the completion of all course work. A candidate who fails a Comprehensive Examination shall be given only one further opportunity to take it. Those who take the Comprehensive Examination will be notified of the results by mail.

DEPARTMENTAL COURSE OFFERINGS

The following section contains courses scheduled through the Division of Continuing Studies. Some of these are also given in the day session.

CLASS SCHEDULES

Fall and spring classes in the Division of Continuing Studies are scheduled between the hours of 5:00 P.M. and 10:15 P.M., Monday through Thursday. Each course meets once per week.

Summer School classes are scheduled by the Division of Continuing Studies between the hours of 8:30 A.M. and 12:45 P.M., Monday through Friday, and from 7:00 P.M. to 10:00 P.M. on Monday, Wednesday and Thursday of each week. Morning courses meet five times per week and evening courses meet three times per week.

Changes in scheduling will be announced at Registration or as soon thereafter as possible.

GENERAL STATEMENT ON COURSES

Students should make certain that they have the necessary prerequisites (if any) for each course. Failure to do so may result in loss of any credit earned in a course having prerequisites.

Courses marked G are strictly graduate courses whereas those designated UG may be taken for either undergraduate or graduate credit. In order to enroll in a G course or to obtain graduate credit in a UG course, a student must hold a bachelor's degree from a four-year college and, at the time of registering for a course, indicate on the registration form his intention of taking it for graduate credit.

Courses marked U are strictly undergraduate courses which are prerequisites to one or more UG or G courses. U courses may not be taken for graduate credit.

The Bulletin of the Division of Continuing Studies, which is published each term, gives the days and hours of meeting for all courses scheduled during the term.

Successful completion of courses does not obligate the Graduate Committee to accept a student in a graduate program.

DIVISION OF THE BEHAVIORAL SCIENCES

Dr. Joseph Graessle Moore, Director

The Division of the Behavioral Sciences is comprised of the Departments of Anthropology, Psychology, and Sociology.

DEPARTMENT OF ANTHROPOLOGY

Professor Joseph Graessle Moore, Chairman
Assistant Professors: Abraham Vazhayil Thomas, Dorothy Wertz

AN 201 General Anthropology U

Origin of man. Physical evolution of man. Division of anthropology, cultural history and development. Basic concepts and methods for analyzing cultures. 3 semester hours credit.

AN 202 Cultural Anthropology U

Science of human behavior in different cultural context. Man's biological and cultural variability; human societies of the present and recent past around the world; dynamics of cultural change. 3 semester hours credit.

AN 205 Culture in Process UG

Use of the inductive approach to examine the effect of culture on individuals and groups. Discussion and study of applied anthropological technics used in planned programs to assist in adopting social change. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

AN 207 Anthropology of the Arts UG

A study of the origins of the artistic impulse in human society and the relation of socio-economic change to changes in artistic style. This will involve some prehistoric art, ancient Greek and Central American architecture, and the development of French Impressionism. The course will attempt to develop a comprehensive theory of styles in relation to society. Emphasis will be on the fine arts, architecture, and the theatre. Topics open to change at student request. 3 semester hours credit.

AN 208 Comparative Religion UG

An examination of theories of the origins of religion, social functions of religious beliefs and rituals, Ancient Near Eastern Religions, Islam, Ancient Judaism, Hinduism, and Buddhism. The relations between living religions and the societies of which they form a part will receive particular attention. 3 semester hours credit.

AN 301 Introduction to Physical Anthropology UG

An introduction to the principles of Physical Anthropology as it relates to human evolution. Examination of present evidence, in an attempt to discover the origin of man. Such aspects of progress as homeostasis, primate radiation, body structure and posture,

feeding ecology and behavior, evolution of the head and reproduction. Prerequisite: AN 201 (General Anthropology U), or one year of natural science. 3 semester hours credit.

AN 302 Introduction to Archaeology UG

Examination of field methods, systems of data recording, analytical methods, and their conceptual basis. Abstract theory closely integrated with specific case material. Laboratory exercises in application of artifact analysis. Prerequisite: AN 201 (General Anthropology U), or one year of natural science. 3 semester hours credit.

AN 304 Personality and Culture UG

A study of the interrelationships between individual and society, focusing on 1) major theories about the formation of personality by the surrounding structures, including Freudian theory and the Marxist concept of alienation; 2) a cross-cultural study of childhood; 3) adolescence in changing America; 4) several conceptions about the contemporary American personality as compared with personality structures in traditional society. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or Major in Behavioral Sciences. 3 semester hours credit.

AN 305 Peoples and Cultures in India UG

A survey of social structure in India, with emphasis on 1) the caste system; 2) the traditional Hindu and Islamic cultures; and 3) the effects of urbanization and modernization upon traditional structures. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or ES 452 (Geography of Asia U). 3 semester hours credit.

AN 307 Seminar: Urban Cultural Dynamics UG

A study of poverty, urban renewal, and the experience of the ghetto. This course will also include crime, family disintegration, problems of housing and transportation, and proposed solutions to the crisis of the inner city. Wherever possible emphasis will be upon Boston. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or ES 353 (Urban Geography UG), or SO 306 (Urban Sociology UG). 3 semester hours credit.

AN 320 West Indian Negro Cultures in the Caribbean UG

Survey of the West Indian Negro cultures in the West Indies including social organization, religion, political development and adjustment to modern conditions. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or one semester of ES 261 (World Regional Geography U), or SO 202 (Introduction to Sociology U). 3 semester hours credit.

AN 322 Seminar: Peoples and Cultures of Africa South of the Sahara UG

Description and analysis of problems of colonialism, acculturation, new nationalism and rapid social change. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or one semester of ES 261 (World Regional Geography U), or SO 202 (Introduction to Sociology U). 3 semester hours credit.

OR

AN 322 Seminar: Afro-Asian Urban Cultures UG

Description and analysis of urban cultures in Africa and Asia with special attention to problems of rapid social change, acculturation, political and economic developments. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or one semester of ES 261 (World Regional Geography U), or SO 202 (Introduction to Sociology U). 3 semester hours credit.

AN 323 Theory of Culture UG

A survey of early schools of cultural theory including Adolf Bastian, Lewis Morgan, Edward B. Tylor, the British Diffusionists, the German Historical-Diffusionist School, French Sociology, Functionalism, including Franz Boas and Malinowski. Current functional evolutionary theory. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), and AN 205 (Culture in Process UG). 3 semester hours credit.

AN 324 Human Evolution and Variation UG

Application of the general evolutionary theory to man; primatology; human paleontology; race formation; cultural effects. Prerequisite: AN 201 (General Anthropology U) and AN 301 (Introduction to Physical Anthropology UG); and concentration in Biology, Physics, Chemistry, or Earth Science, or AN 301 (Introduction to Physical Anthropology UG). 3 semester hours credit.

AN 326 Archaeology of North America UG

Survey of some of the historic and prehistoric Indian cultures in North America. Prerequisite: AN 201 (General Anthropology U) and AN 302 (Introduction to Archaeology UG) or concentration in Biology, Physics, Chemistry, or Earth Science. 3 semester hours credit.

AN 402 Seminar on Field Methods UG

Methods of field work for cultural anthropologists working in ongoing societies; design of field studies; techniques for collection and analysis of emphirical data, experimental field projects. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

AN 404 Seminar: Anthropology for Elementary Education UG

Theory and techniques of teaching Anthropology to elementary students. Special course material in physical and cultural anthropology and prehistory and Archaeology. Grades 1 thru 6. Prerequisite: AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

AN 406 Seminar: Archaeological Field Excavation, Survey and Research in Prehistoric Village sites in New England. UG

Intensive training in excavation techniques, recordation, analysis, and interpretation of archaeological materials. Prerequisite: AN 302 (Introduction to Archaeology UG) and ES 484 (Geomorphology UG). 3 semester hours credit.

DEPARTMENT OF PSYCHOLOGY

Professor James Trelear Lester, Chairman

Professor: Iva V. Lutz

Associate Professors: Herbert Greenwald, Elizabeth Hollis

Assistant Professors: Louis Schippers, James Rudolph Scroggs

Visiting Lecturers: Mary Ardis, Leonel Joseph Neron

PY 200 General Psychology U

This is an introductory course planned to acquaint the student with the techniques of modern psychology, the structure of behavior, conditions and theories of learning, and theories of personality development. 3 semester hours credit.

PY 222 Psychology of Learning UG

The purpose of the course is to provide an examination of the theoretical and research aspects of the learning process. Theories of Learning will be examined in relation to experimental design, and the learning situation. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 224 Child Growth and Development UG

A study will be made of the growth and development of the child from birth to pre-adolescence. Attention will be focused on biological, psychological, and social factors as well as moral forces which influence child behavior. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 226 Adolescent Psychology UG

The purpose of this course is to provide a better understanding of the pre-adolescent. A study will be made of the major theories of adolescence. Physical, mental, moral, emotional, personality, and social aspects will be considered. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 227 Psychology of Exceptional Children UG

Emphasis will be on identification and understanding of the growth and development of exceptional children. Special techniques considered appropriate to the needs of such children will be treated. Emphasis will also be placed on the contribution the classroom teacher can make to the education and welfare of the mentally, emotionally, and physically handicapped child as well as the academically talented. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 228 Psychology of Mental Retardation (Subnormal Psychology) UG

The symptomatology and etiology of mental retardation constitute the basic subject matter of the course. Tests and other diagnostic devices will be examined. Etiologies such as cultural deprivation, maternal deprivation, and sensory deprivation will be considered as well as the traditional familial and organic causes. Therapeutic and remedial techniques (especially those based on psychological principles, such as operant conditioning) will also be studied. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 229 Abnormal Psychology UG

A systematic study of behavior pathology with special reference to the psychopathology of physical illness, neuroses, psychoses, personality disorders, addiction, and acute and chronic brain disorders. Emphasis will also be placed upon etiology, symptomology, prognosis and prevention. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 230 Social Psychology UG

The individual in social situations; attitude formation and change, culture and society, language and communication, leadership and group dynamics, personality characteristics and interpersonal relationships. Classic studies in prejudice, brainwashing, competition, and small group behavior. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 231 Psychology of Personality UG

Basic concepts in the field of personality are presented with emphasis upon theories and such psychological aspects of human behavior as motivation, dynamics, and evaluation. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

PY 302 Psychological Theory UG

The purpose of the course is to examine the fundamental assumptions underlying the psychological enterprise and to study the issues which are the subjects of continuing debate in the field - e.g., causality, determinism, the control of behavior, the nature of man. In the process, reference will frequently be made to various schools of thought, contemporary and historical, and to the history of psy-

chology in general. Prerequisite: PY 200 (General Psychology U), or PY 231 (Psychology of Personality UG). 3 semester hours credit.

PY 304 Attitude and Personality Measurement UG

Techniques of attitude scale construction and personality assessment; projective tests, response-set and content inventories. Use of Likert scales, semantic differential, forced choice, equal-appearing intervals, and summated ratings. Standardization of tests. Issues and controversies in measurement. Prerequisite: PY 200 (General Psychology U) and MA 110 (Elementary Statistics U), or equivalent. 3 semester hours credit.

PY 306 Experimental Psychology UG

The shaping of behavior; laboratory conditioning, reinforcement, approach and avoidance of a goal, discrimination and generalization of physical cues, animal learning experiments. Experimental approaches to the study of human behavior. Prerequisite: PY 200 (General Psychology U) and PY 229 (Abnormal Psychology UG). semester hours credit.

PY 510 Seminar: Clinical Psychology G

Survey of diagnostic and treatment procedures and resources in clinical guidance work with children and adults; professional duties and skills of the clinical psychologist. Prerequisite: PY 200 (General Psychology U) and PY 300 (Abnormal Psychology UG). 3 semester hours credit.

PY 512 Seminar: Attitude Change Research G

Empirical research in persuasion; communicator credibility, opinion differences, commitment, one-sided (pro) and two-sided (pro and con) arguments, coercion and threat, emotional and rational arguments. Theories of attitude change, including dissonance theory, balance theory, congruity theory, assimilation and contrast theory, and quasi-stationary equilibrium theory. Prerequisite: PY 200 (General Psychology U) and PY 304 (Attitude and Personality Measurement UG). 3 semester hours credit.

PY 522 Seminar: Applied Social Psychology G

Effective communication, and better understanding of oneself; listening, conflict resolution, persuasion, goals and expectations, self-confidence. Contemporary problems such as dissent, minority groups. Guest speaker when possible. Prerequisite: PY 230 (Social Psychology UG). 3 semester hours credit.

PY 526 Seminar: Research Methods in the Behavioral Sciences G

Techniques for obtaining reliable information and minimizing arti-

fact; surveys, personal interviews in depth, individual differences measures, and controlled laboratory conditions. Philosophy of methodology. Hypothesis formation, experimental design, statistical analysis, and data interpretation. Simple and multi-factorial research; role of theory in research. Prerequisite: Major in Psychology or Behavioral Sciences. 3 semester hours credit.

PY 500 Research Practicum G

Research methods and statistics. Individual or group research project. Prerequisite: Major in Psychology or Behavioral Sciences. 3 semester hours credit.

PY 502 Directed Studies (or Honor Thesis) UG

Supervised individual project and reading for students who have completed the major portion of their degree requirement. Prerequisite: Consent of Instructor and Departmental Chairman, and Major in Psychology or Behavioral Sciences. 3 semester hours credit.

DEPARTMENT OF SOCIOLOGY

Professor Joseph Graessle Moore, Chairman

Professor: Morgan Cornelius Brown

Associate Professor: Maude Clay Little Greene

Assistant Professors: Abraham Vazhayil Thomas, Dorothy Wertz

Visiting Lecturer: Charles William Gaughan

SO 202 Introduction to Sociology U

Social structure, basic human institutions, analysis of social processes, major social forces. 3 semester hours credit.

SO 204 Sociology of Religion UG

Comparative study of religious systems and institutions, function and role of religion and the church in society; professional status, history and relations of the clergy. 3 semester hours credit.

SO 303 The Family UG

The family as a social institution in terms of its historical and cultural development. Analysis of psychological and social factors in contemporary family life. Prerequisite: SO 202 (Introduction to Sociology U), or AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

SO 304 Social Stratification UG

Historical and contemporary examples of the range of stratification systems. Problems of class and caste, conflicts. Trends in class system and social mobility, with special attention given to similarities and differences of modern industrial societies. Prerequisite: SO 202 (Introduction to Sociology U), or AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

SO 306 Urban Sociology UG

A sociological and ecological analysis of the city in terms of urban institutional and personality patterns, folkways and mores. Ecological process and structure. The city as center of dominance over a trade area and hinterland. Prerequisite: SO 202 (Introduction to Sociology U), or ES 353 (Urban Geography UG), or AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

SO 307 Urban Problems UG

Poverty, intergroup conflict, breakdown in education, crime, delinquency and urban riots will be examined. Special emphasis will be on new approaches in education in the city--decentralization, community control, relevant curriculum. This course is especially planned for students preparing for urban teaching. Experience in a problem area will be an integral part of the course. Prerequisite: SO 202 (Introduction to Sociology U), or ES 353 (Urban Geography UG), or AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

SO 309 Introduction to Social Welfare UG

Institutional analysis of social welfare, social agencies. Sociological aspects of social work as a profession. Prerequisite: SO 202 (Introduction to Sociology U). 3 semester hours credit.

SO 310 Indian Cultural and Social Organization UG

A descriptive and analytical examination of societies of the Indian subcontinent dealing with their cultural histories, economic, social, political and religious institutions. Problems of Cultural and social change. Prerequisite: SO 202 (Introduction to Sociology U), or AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U). 3 semester hours credit.

SO 312 Urban Minority Relations UG

A study of the relations between ethnic and racial groups in the United States, with particular attention to the Boston Irish, the

Boston Italians, and the Negro-Americans. Concentration will be upon the Negro in America and the problems of identity. Prerequisite: SO 202 (Introduction to Sociology U), or AN 201 (General Anthropology U), or AN 202 (Cultural Anthropology U), or ES 353 (Urban Geography UG). 3 semester hours credit.

SO 400 Seminar: Social Theory UG

The history of social theory and selected topics in modern social theories, analysis of alternative conceptual approaches and their methodological requirements. Prerequisite: Major in Sociology or Behavioral Sciences. 3 semester hours credit.

SO 402 Seminar: Research Methods in Sociology UG

Application of scientific methods to the analysis of social phenomena, methodological orientation in sociology, types of research procedure, nature of sociological variables. Prerequisite: Major in Sociology or Behavioral Sciences. 3 semester hours credit.

DIVISION OF CREATIVE ARTS

Dr. Harold Ridlon, Acting Director

The Division of Creative Arts in comprised of the Departments of Art, Music, and Speech and Theatre.

DEPARTMENT OF ART

Associate Professor Doris Emma Tebbetts, Chairman

Instructors: John Heller, Estela Keim, William Kendall

AR 280 Understanding the Arts UG

The primary aim in this course is the development of a framework for visual understanding and enjoyment. The student is taught to apply an analytical technique to specific objects chosen for study. Attention is also focused on social, historical, and psychological factors which enter into the total fabric of art. There will be assigned readings and museum visits. 3 semester hours credit.

AR 380 General Crafts UG

The student will be offered a variety of technical processes in the handicrafts. From these he will be asked to select a limited number of projects which he will complete; each one to be representative of a different craft area. (The General Crafts courses, AR 213, 214, formerly required, are no longer offered.) 3 semes- hours credit.

AR 381 Crafts in Special Education UG

Instruction in a variety of craft media and technical processes adapted to the particular needs of the student of special education is the basis of this course. May be repeated once for credit. 3 semester hours credit.

AR 383 Ceramics and Sculpture I UG

This course is directed at the student who wishes to work three-dimensionally with a particular emphasis on the design and esthetics of clay forms. The student will learn basic wheel forming and construction techniques in clay, and will be encouraged to work with forms in wood and other materials. 3 semester hours credit.

AR 384 Ceramics and Sculpture II UG

This course is designed to offer the student who has had an introduction in working with three-dimensional forms the opportunity to refine his own design ideas and to develop his technical ability. He will work in the media of his choice; either clay, wood, or other material. Ceramic design with glazes and the composition of clays will be explored. 3 semester hours credit.

AR 385 Metal Design I UG

Basic metal design, construction, and forming techniques will be combined to produce jewelry, constructed forms, small sculptures, and enameling. The student will have the opportunity to develop proficiency in the use of basic hand tools related to the field. The student may choose to work in pewter, copper, silver, or gold. 3 semester hours credit.

AR 386 Metal Design II UG

Students who have completed basic work in the design, construction, and embellishment of objects in metal, will develop and refine their own designs. Advanced problems and techniques will offer a chance for further speculation. The student will decide his own problems and choice of materials. 3 semester hours credit.

AR 387 Techniques of Drawing and Painting I UG

The course is planned to develop basic skill in pictorial organization in painting and drawing techniques. Evaluation will be based on the individual student's extent of growth during the course. Field trips to art museums and galleries will give the students direct contact with original works of well known artists. (This course was formerly given as AR 383, Techniques of Drawing and Painting.) 3 semester hours credit.

AR 388 Techniques of Drawing and Painting II UG

Advanced projects in painting and drawing will be planned appropriate to the individual's style of development. Field trips to art museums and galleries will be orientated toward analysis of technique and design. (This course was formerly given as AR 383, Techniques of Drawing and Painting.) Prerequisite: AR 387 (Techniques of Drawing and Painting I UG), or permission of the Instructor. 3 semester hours credit.

AR 390 Interior Design UG

Traditional and contemporary styles in furniture and interior design are studied in illustrated lectures and field trips. Problems in the selection and arrangement of home furnishings afford opportunity for the development of individual taste. 3 semester hours credit.

AR 391 History of Art UG

This course is designed to acquaint the student with the major historical developments in art. The phenomenon of style is examined in conjunction with its relation to the historical process. Techniques of stylistic analysis are employed in the study of objects chosen from museum collections. There will be assigned readings and museum work. 3 semester hours credit.

AR 394 Renaissance Art and Architecture UG

This course is concerned with the development of the arts of architecture, painting, and sculpture in the Early and High Renaissance, with special emphasis on their interrelationships and their relation to the artistic theories and cultural ideals of the time. 3 semester hours credit.

AR 395 Baroque Art G

Mannerist and Baroque styles of the 16th through 18th centuries will be studied, with emphasis on their origins in Italy and development through western Europe. Prerequisite: AR 391 (History of Art UG), or AR 394 (Renaissance Art and Architecture UG), or permission of the Instructor. 3 semester hours credit.

AR 396 Modern Art UG

This course involves a study of painting, sculpture and architecture from Neo-Classicism to the present. Emphasis will be placed on major contemporary art movements. Prerequisite: AR 391 (History of Art UG), or permission of the Instructor. 3 semester hours credit.

AR 398 Arts of the Far East UG

A selective review of major achievements in the arts of the Asiatic tradition, including those of India, Indonesia, China, Korea, and Japan. Comparison, when appropriate, with the arts of the West. Prerequisite: AR 391 (History of Art UG), or permission of the Instructor. 3 semester hours credit.

AR 399 The Arts of the Americas UG

A survey of the arts of the early Americas, including the Inca, Toltec, Mayan, and Aztec cultures, with selected examples from the primitive Indian Arts of North America. 3 semester hours credit.

DEPARTMENT OF MUSIC

Professor Kenneth Falkner, Chairman

Assistant Professors: Dorothy R. Ferry, Vincent H. Gannon, Marjorie E. Hayward

Instructors: Beth Ellis, Jacob Liberles

MU 101, 102 Instrumental Theory and Practice UG

This course includes fundamentals of musicianship, solfeggio, scales, intervals, triads, seventh chords, correlated rhythmic, melodic, and harmonic drill. Prerequisite: ability to play a musi-

cal instrument and permission of the Instructor. 1 class hour and one 2-hour rehearsal per week; 1 semester hour credit for each semester.

MU 110 Music Theory U

Included in this course are the fundamentals of music, its structure and components, sight singing, the methods of teaching vocal music by rote, and basic harmony. 3 semester hours credit.

MU 113 Sight Singing

This course is designed for those Elementary majors who have not had sufficient experience in syllabication and ear training to help them in this phase of teaching music on the elementary level. No credit. Hours to be arranged.

MU 120 Music in Physical Education UG

This course is designed primarily for Physical Education majors and stresses the rhythmic content of music. Experiences include action songs, free rhythmic activity to instrumental music, the use of rhythm instruments, folk dances, and musical games. 2 semester hours credit.

MU 310 Music Skills UG

This course includes adaptation of music fundamentals as applied to vocal, rhythmic, and creative teaching on the elementary level. Prerequisite: MU 110 (Music Theory U). 3 semester hours credit.

MU 320 History and Development of Music UG

Through the use of text-book and recordings, students are made aware of the various styles and forms of music from the Baroque to the Contemporary. This includes vocal and instrumental forms. The lives of the composers are studied in relation to their compositions. Emphasis is placed upon identifying their style through listening. 3 semester hours credit.

MU 321 Music of the Renaissance and Baroque Periods UG

The chronological development of forms and styles in both sacred and secular music from the Middle Ages through the Baroque will be given special emphasis. Compositions will be studied through recordings. Reading assignments in reference books and standard histories will be given. 3 semester hours credit.

MU 322 Music of the Classical and Romantic Periods UG

The music of Haydn, Mozart, and Beethoven of the Classical

era will be studied, as well as that of Schubert through Wagner in the Romantic era. The lives of the composers as well as the literature of their music will be approached through lecture and specific reading assignments. The compositions will be studied through recordings. 3 semester hours credit.

MU 330 Basic Piano UG

This course includes fundamentals of instrumental technique, and concentrates on the ability to play simple accompaniments for vocal music on the elementary level. 3 semester hours credit.

MU 390 Music of the 20th Century UG

Important changes in contemporary music will be studied. Major musical forms written since 1900 will be analyzed and critical evaluation made of compositions of this period. Biographical background and historical influences will form part of the basis of study. This will be approached through the use of text-book and recordings. Prerequisite: MU 320 (History and Development of Music UG). 3 semester hours credit.

MU 400 Creative Activities in Elementary School Music UG

Practical experience will be offered in the following areas: free and directed response to rhythm; use of percussion, melody, and harmony instruments; piano chording; creative listening and singing activities. Prerequisite: MU 310 (Music Skills UG). 3 semester hours credit.

MU 403 Contemporary Practices UG

This course will offer a study of chromatic harmony and advanced modulation, atonality, polytonality, and analysis of the 20th century. 3 semester hours credit.

MU 420 Vocal Ensemble Practices UG

This course offers choral practices, including voice training, experience in part singing, dynamics used in vocal ensemble, and choral conducting. 3 semester hours credit.

MU 430 Harmony and Solfeggio UG

This course will include sight singing and ear training in all clefs; also construction of major and minor scales, triads and seventh chords in all positions; modulation, harmonic analysis, and key-board drill. 3 semester hours credit.

DEPARTMENT OF SPEECH AND THEATRE

Associate Professor Robert Jackson Barnett, Chairman

Associate Professors: Karin VanLissel DuBin, Willis Norman Pitts

Assistant Professors: Robert Kenneth Friedman, Lindley Tower Spencer, Richard Warye

Instructor: Lee Anne Firestone Dunne

ST 200 Fundamentals of Oral Communication U

In this course, ideas and values that are central to the total oral communication process are introduced on both the practical and theoretical level. The student is helped to become a responsive and effective participant in conversation, discussion, speech-making, interviewing and other forms of oral expression. 3 semester hours credit.

ST 290 Speech Correction I UG

An introduction to the problems of normal language and speech development in children. A study of the most common functional and organic communication disorders, with emphasis placed on identification and treatment of these problems in the classroom situation. Lectures, reading, research. 3 semester hours credit.

ST 330 Creative Dramatics UG

This course is designed to give training and methodology in developing the child's creative faculties through the use of dramatic play. Students will participate in classroom exercises, and work in laboratory sessions with children in order to put into practice the concepts of preparation and evaluation learned through class discussion and lecture. 3 semester hours credit.

ST 340 Oral Interpretation UG

This course will offer opportunity for the study and practice of various styles of presentation in the oral interpretation of prose and poetry. A detailed evaluation and analysis of that material which is suitable for preparation and delivery to the class will be made. This course is especially recommended for those students with a definite interest in literature and humanities. Prerequisite: ST 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

ST 360 Discussion and Debate UG

Through frequent practice and intensive study the student is trained in the principles and methods of communication as they apply to the group situation. The functional aspects of group membership,

discussion, debate, logic, and leadership will be given particular attention. Prerequisite: ST 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

ST 370 Play Production UG

This course is designed to treat the various aspects of school play production, ranging from classroom to all-school presentations on the elementary or high school level. It deals with such problems as selecting a play, casting, directing, lighting, costuming and designing, and building scenery. Practical work in the above activities will be required of all students. 3 semester hours credit.

ST 380 Stagecraft UG

This course will offer the opportunity for the study of the principles of stagecraft. Students will also receive practical experience in the design, construction, painting, rigging and handling of stage scenery. In addition, lighting the stage and prop construction will be studied to a limited degree. Practical work in all areas will be required on a laboratory basis. Prerequisite: ST 370 (Play Production UG). 3 semester hours credit.

ST 390 Principles of Acting UG

To develop an appreciation of and skill in the fundamentals of acting. Classroom exercises, improvisations, and scenes are aimed at providing the beginner with a basic technique which can be applied to the creation of any role. Prerequisite: ST 370 (Play Production UG). 3 semester hours credit.

ST 395 Principles of Directing UG

To provide the basic knowledge and techniques the beginning director will need in order to interpret a play to an audience. Among the areas covered are play analysis, composition, movement, characterization, and rehearsal techniques. Prerequisite: ST 370 (Play Production UG). 3 semester hours credit.

ST 400 Advanced Oral Communication UG

In the advanced course the student is helped to assume leadership responsibilities in the development of both meaning and form in logical and creative modes of oral communication. The students learn to use the more complex areas of oral communication, i.e., role-playing, creative dramatics, story telling, interpretive reading and choral speaking to help him develop the total communicative process. Prerequisite: ST 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

ST 412 Phonetics UG

The primary emphasis of this course will be upon the study of the International Phonetic Alphabet, and its application to the sounds of the language. The factors of articulation, enunciation, and pronunciation will be noted along with drill work in connection with the sounds of acceptable speech. Further, stress will be placed upon an understanding of the vowels and consonants and upon modes of sound production. Prerequisite: ST 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

ST 420 Children's Theatre UG

This course is designed as a survey of the history and objectives of theatre for the child audience. It examines some of the special techniques of acting, directing, and producing plays for children. Attention is given to play selection and adaptation of children's literature for dramatic presentation. Students will direct scenes or "Cuttings" as part of their class work. Prerequisite: ST 370 (Play Production UG). 3 semester hours credit.

DIVISION OF THE HUMANITIES

Dr. Harold Guy Ridlon, Director

The Division of the Humanities is comprised of the Departments of English, Modern Foreign Languages, and Philosophy.

DEPARTMENT OF ENGLISH

Professor Harold G. Ridlon, Chairman

Professors: Barbara A. Chellis, Samuel N. Sheinfeld

Associate Professors: Joseph DeRocco, Margaret Frances Guerin, William S. Jacobson, Mary Moore Jarvis, Virginia C. Joki, Charles F. McGinnis, Joseph B. Yokelson

Assistant Professors: Marcia J. Anderson, Harold F. DeLisle, Katherine F. Lomax, Gutala Krishnamurti, James K. Nerney, Tom G. Watson, Clifford A. Wood

Instructors: Charles F. Angell, Dolores E. Brien, John H. Porter, Robert A. Rose, Robert J. Silbernagel, Judith M. Stanton

EN 200 Advanced Composition UG

Expository writing is taught through frequent practice, analysis of models, and criticism by instructor and students. 3 semester hours credit.

EN 211, 212 Literary Classics of Western Civilization UG

Classic literature of Western Civilization will be studied in relation to historical background, but with particular emphasis on literary values. Among the works to be read are Homer's Iliad, tragedies of Aeschylus, Sophocles, and Euripides, Dialogues of Plato, selections from the Bible, Vergil's Aeneid, Dante's Inferno, Chaucer's Canterbury Tales, Cervantes' Don Quixote, plays by Shakespeare, Moliere, Goethe, and Shaw, and one or more modern novels. 3 semester hours credit for each semester.

EN 221, 222 Major English Writers UG

This course will emphasize the major figures of English literature from Anglo-Saxon times to the modern period. Authors will be studied in relation to historical background but with particular stress on literary values. 3 semester hours credit for each semester.

EN 230 Creative Writing UG

This course provides the opportunity for work of a highly individual and creative nature, in fiction, non-fiction, verse, or drama. Suitable models for various genres will be studied, and frequent conferences will be held. 3 semester hours credit.

EN 231, 232 Major American Writers UG

A general survey of American Literature from the Colonial beginnings to the present. Writers such as Franklin, Edwards, Irving, Poe, Hawthorne, Emerson, Whitman, Dickinson, Twain, James, Frost, Eliot, Faulkner, and Hemingway will be studied in their social and cultural contexts. 3 semester hours credit for each semester.

EN 235 The Short Novel UG

This course will concern itself with the short novel as a form used by the writers of many countries. Works of Conrad, Dostoievsky, Faulkner, James, Joyce, Kafka, and Mann will be included. 3 semester hours credit.

EN 300 The History and Structure of the English Language UG

The changes in the structure of the English language from Anglo-Saxon to modern English will be studied with attention to pertinent historical background. There will be an introductory study of structural linguistics and generative grammar. 3 semester hours credit.

EN 314 Literature of the Middle Ages UG

This course will include non-Chaucerian writing in the Middle Ages with emphasis on lyricism, narratives and drama of the period. Among the works to be read will be Pearl, Piers Plowman, Gawain and the Green Knight, The Owl and the Nightingale, Everyman, selected miracle plays and Confessio Amantis. 3 semester hours credit.

EN 320 Chaucer UG

This course is an introduction to Chaucer's life, times, and language. Although emphasis will be placed on the Canterbury Tales, other works will be examined also. 3 semester hours credit.

EN 330 Modern American Literature UG

This course is designed to acquaint the student with the major literary trends in American writing of the twentieth century. The course focusses primarily on the novel, with examples from Dreiser, Hemingway, Fitzgerald, Lewis, Wilder, K. A. Porter, and Salinger. 3 semester hours credit.

EN 331, 332 United States Literature through the Nineteenth Century UG

In the first semester, the writings of the Puritans, Cooper, Brown, Poe, Emerson, Thoreau, Whitman, and Dickinson will be discussed. In the second semester, emphasis will be given to the novels and tales of Hawthorne, Melville, Twain, and James. 3 semester hours credit for each semester.

EN 335 Elizabethan and Jacobean Drama UG

Reading and discussion of a number of plays with attention to contemporary social developments as well as to the historical development of the English Play. 3 semester hours credit.

EN 338 The Short Story UG

The primary focus in The Short Story will be on the examination of the relationship between form and content in several British, American and continental short stories. A secondary concern will center on the historical development of the genre. 3 semester hours credit.

EN 340 Literature of the English Renaissance UG

This course in the non-dramatic literature of the Age of Shakespeare will include the reading of works by such writers as Sidney, Spenser, Nashe, Marlowe, and Drayton. Although the emphasis will be on textual analysis, the historical, social, and cultural background of the period will also be examined. 3 semester hours credit.

EN 341, 342 Shakespeare UG

In this course selected plays of Shakespeare will be studied. In each quarter three plays, generally two tragedies and one comedy, will be read with attention to both language and thought. 3 semester hours credit for each semester.

EN 346 Southern Literature UG

The course will begin with the Fugitives in the 1930's (Robert Penn Warren, Allen Tate, John Crowe Ransom, and Donald Davidson primarily) and their concern with the problem of the Southern writer's coming to grips with his identity as both a Southerner and an artist. From this point, the course will focus on the writings of such contemporary figures as William Faulkner, Tennessee Williams, Katherine Anne Porter, Flannery O'Connor, Carson McCullers, Eudora Welty, and Peter Taylor. 3 semester hours credit.

EN 350 The Modern English Novel UG

This course entails a selective survey of major contributors to the English novel from Joseph Conrad through the school of the "Angry Young Men." Major attention will be given to the analysis of specific texts. 3 semester hours credit.

EN 353, 354 Modern Drama UG

This course will consider the main forces in modern drama. Starting with Ibsen, students will read and discuss selected plays of leading dramatists of Europe and America. 3 semester hours credit for each semester.

EN 360 The Victorian Novel UG

This course will concentrate on the major novelists of the 19th century: Dickens, Thackeray, Eliot, Meredith, and Hardy. Attention will be given to biographical and historical background. 3 semester hours credit.

EN 365 Victorian Prose and Poetry UG

The major emphasis will be placed upon the poetry of Tennyson, Browning, and Arnold, but the works of other 19th century poets such as Hopkins and Hardy will also be read and discussed. The essays of Carlyle, Arnold, Newman, Huxley, and others will also be studied. 3 semester hours credit.

EN 380 Milton UG

In this course the emphasis will be placed on the main poetical works of Milton: Paradise Lost, Paradise Regained, and Samson Agonistes. However, certain of the minor poetic works, as well as selected prose will be read also. Prerequisite: permission of the Instructor. 3 semester hours credit.

EN 383 Modern Irish Literature UG

This course will include Irish writing from 1890 to the present, with special emphasis on the works of Yeats, Synge, O'Casey, Joyce, O'Connor, and O'Faolain. 3 semester hours credit.

EN 386 English Romantic Poets UG

In this course the chief works of Wordsworth, Coleridge, Byron, Shelley, and Keats will be studied. Emphasis will be placed on textual analysis, but consideration will be given to historial background and to developments in philosophy and esthetic theory which have a direct bearing on Romantic poetry. 3 semester hours credit.

EN 387 Indo-Anglian Literature UG

This course will deal with literature written in English by Indian writers. The emphasis will be on fiction, particularly the novels and short stories dealing with the conflict between old and new in Indian national life. 3 semester hours credit.

EN 390 Literary Criticism UG

This course will serve as an introduction to the history of literary criticism from Aristotle to the present. Emphasis will be placed, however, on those persistent esthetic, psychological, social, and cultural patterns which have helped shape the literature of our own age. 3 semester hours credit.

EN 391 Modern Literary Criticism UG

This course will explore several twentieth-century critical approaches to literary analysis, interpretation, and evaluation. Particular attention will be given to literary concepts derived from psychoanalysis, sociology, anthropology, semantics, philosophy, and theology. Such topics as existentialist criticism, the "new criticism," and the theory of myth and symbol will be considered. 3 semester hours credit.

EN 392 Modern Poetry UG

This course covers the major British and American poets of the 20th century with particular emphasis on the works of Hopkins, Yeats, Robinson, Eliot, Auden, and Thomas. 3 semester hours credit.

EN 393 Modern British Poetry UG

This course covers the major British poets of the twentieth century with particular emphasis on the works of Hopkins, Yeats, Eliot and Thomas. 3 semester hours credit.

EN 394 Modern American Poetry UG

This course covers the major American poets of the twentieth century with particular emphasis on the works of Robinson, Frost, Williams and Stevens. 3 semester hours credit.

EN 395 Eighteenth Century Literature UG

This course will concentrate on the writings of several major literary figures, such as Swift, Boswell, Johnson, Defoe, Fielding, and Richardson. 3 semester hours credit.

EN 400 Techniques of Literary Research UG

This course offers training in research procedures, with special reference to the materials and methods of literary study and publication. Various critical approaches to literature will be examined, and some evaluation of scholarly procedure will be made. 3 semester hours credit.

EN 492 Reading and Research UG

This course offers the opportunity for independent study under the guidance of individual members of the department. To be considered for admission, one must be a senior of honor standing and must submit a general proposal for a topic or area of study. Credit arranged.

EN 495 Seminar UG

The topics explored and the areas covered in this course will vary from year to year. In 1969-70, the topic will be "Studies in Yeats and Eliot," in which all the major works, and most of the minor works of both poets will be studied intensively. 3 semester hours credit.

DEPARTMENT OF MODERN FOREIGN LANGUAGES

Associate Professor Robert Charles Arruda, Chairman

Associate Professor: Wayne Maurice Judah

Assistant Professors: Robert Allen Briggs, Anthony Charles Cotugno, Robert Dale Dawley, Barbara Heidelauf George, Joseph Matthew Giannini, Lenore Marie Padula, Christiana Pollak Reordan, Mary Cingolani Shapiro

Instructor: Armand Eugene Desautels

French

LF 101, 102 Elementary French U

This course offers an aural-oral approach to the grammar of the French language. Emphasis will be on the mastery of correct pronunciation and essential grammatical points to ensure basic oral and reading commands of the language. 3 semester hours credit for each semester.

LF 151, 152 Intermediate French UG

This course is a continuation of Elementary French with stress on essential grammatical points, oral work, and reading knowledge of the language. An introduction to some aspects of French literature will also be included. Prerequisite: LF 101, 102 (Elementary French U). 3 semester hours credit for each semester.

LF 181, 182 Advanced French UG

A rapid and systematic review of French grammar along with more advanced study of the language, this course also includes advanced reading selections with emphasis on French culture. Prerequisite: LF 151, 152 (Intermediate French UG). 3 semester hours credit for each semester.

LF 201 French Literature of the Middle Ages UG

A survey of medieval French Literature, including a study of cultural and literary innovations in France from the ninth through the fifteenth centuries. Readings in modern foreign translation will include: Chanson de Roland, Tristan et Iseut, Roman de la Rose, Yvain, Fabliaux, Poésie Lyrique, Théâtre Comique. Prerequisite: LF 181, 182 (Advanced French UG). 3 semester hours credit.

LF 252 Sixteenth Century French Literature UG

A study of the development of ideas, particularly humanistic, in the works of Rabelais, the poets of the Pleiade, and Montaigne. Prerequisite: LF 201 (French Literature of the Middle Ages UG), or its equivalent. 3 semester hours credit.

LF 281 French Conversation and Civilization UG

This course is designed to improve oral expression and pronunciation. Discussion topics on aspects of French Civilization will be assigned, with a view to building vocabulary and to making applications of structures learned. There will also be assigned reading in French Civilization. Prerequisite: LF 181, 182 (Advanced French UG). 3 semester hours credit.

LF 301 Seventeenth Century French Literature UG

The principal historical events and representative writers of France in the seventeenth century will be studied with the object of understanding Classicism as a literary movement. The course will deal with the ideas and works of this period from Malherbe through Madame de Maintenon. Prerequisite: LF 201 (French Literature of the Middle Ages UG), and LF 252 (Sixteenth Century French Literature UG). 3 semester hours credit.

LF 352 Eighteenth Century French Literature UG

The literature of the French Revolution and the literary contributions of the Encyclopedists will be the principal concerns of this course. Some of the authors to be studied are: Le Sage, Marivaux, Montesquieu, Voltaire, Rousseau, Beaumarchais, Chenier, and the Encyclopedists. Prerequisite: LF 301 (Seventeenth Century French Literature UG). 3 semester hours credit.

LF 381 French Linguistics and Phonetics UG

In this course a linguistic approach to the study of the sounds of the French language is made, with emphasis on a mastery of the elements of correct standard pronunciation. Prerequisite: LF 181, 182 (Advanced French UG). 3 semester hours credit.

LF 401 Nineteenth Century French Literature UG

This course will cover the nineteenth century through representative literary works and the principal literary movements of Romanticism. Prerequisite: LF 301 (Seventeenth Century French Literature UG) and LF 352 (Eighteenth Century French Literature UG). 3 semester hours credit.

LF 452 Twentieth Century French Literature UG

This course involves a study of modern French literature from the authors of "national energy" at the turn of the century, to those of the present day. Important literary movements will be discussed, and typical works of well-known authors will be read for class work and individual reports. Particular attention will be given to Bourget, Gide, Apollinaire, Peguy, Claudel, Romains, Sartre, Camus, and others. Prerequisite: LF 401 (Nineteenth Century French Literature UG). 3 semester hours credit.

LF 481 Advanced French Composition and Grammar Review UG

Emphasis will be on a review and mastery of the essential grammar of the French language, with the intention of making it a useful tool for the students' written and oral use and application to the classroom situation. Students will be required to write compositions of various lengths and forms to develop their ability to express themselves in the written form of the language. Prerequisite: LF 281 (French Conversation and Civilization UG) and LF 381 (French Linguistics and Phonetics UG). 3 semester hours credit.

German

LG 101, 102 Elementary German U

This course offers an audio-lingual approach to the study of the German language. Emphasis will be on the mastery of correct pronunciation and of essential grammatical points to ensure a basic oral and reading command of the language. 3 semester hours credit for each semester.

LG 151, 152 Intermediate German UG

This course includes a systematic review of basic German grammar and pronunciation. Graded reading selections will accompany the review to develop and improve the students' reading and conversational knowledge of the language. An introduction to some aspects of German culture will also be included. Prerequisite: LG 101, 102 (Elementary German U), or its equivalent. 3 semester hours credit for each semester.

LG 181, 182 Advanced German UG

This course includes a review of German grammar and systematic vocabulary building through reading and discussion of more advanced forms of German literature. The discussions will be conducted mostly in German. Required of all German minors. Prerequisite: LG 152 (Intermediate German UG). 3 semester hours credit for each semester.

LG 191, 192 Scientific German UG

This course involves a systematic review of basic German grammar. The emphasis will be on vocabulary building for the reading of scientific material in German. Required of science majors as a substitution for LG 151, 152 (Intermediate German UG). Prerequisite: LG 101, 102 (Elementary German U), or its equivalent. 3 semester hours credit.

LG 201, 202 Survey of German Literature UG

This course offers a study of the beginnings of the German language,

of the important movements and their representative works, and of the outstanding authors in the German language from the Middle Ages to the present. Required of all German minors. Prerequisite: LG 181, 182 (Advanced German UG). 3 semester hours credit for each semester.

LG 282 German Conversation and Civilization UG

This course is designed to develop further the student's command of spoken German. Toward the attainment of this goal extensive oral practice will be offered, with a view to building vocabulary and to making application of structures learned. Discussion topics will center upon aspects of German civilization and culture. Prerequisite: LG 182 (Advanced German UG), or permission of the Instructor. 3 semester hours credit.

Italian

LT 101, 102 Elementary Italian U

This course is an aural-oral approach to the grammar of the Italian language. Emphasis will be on the mastery of correct pronunciation and of essential grammatical points to ensure a basic oral and reading command of the language. 3 semester hours credit for each semester.

LT 151, 152 Intermediate Italian UG

A continuation of Elementary Italian with stress on essential grammatical features, oral work and reading development in the language. Prerequisite: LT 101, 102 (Elementary Italian U). 3 semester hours credit for each semester.

Portuguese

LP 101, 102 Elementary Portuguese U

An introduction to the basic skills of reading and writing that will seek to develop the aural comprehension and the oral mastery of the Portuguese language. 3 semester hours credit for each semester.

LP 151, 152 Intermediate Portuguese UG

This course will include a review of basic grammar and pronunciation before continuing with a more advanced study of these two aspects of the language. Reading, writing, and oral proficiencies will be stressed. The history of Brazil and Portugal will also be studied. Prerequisite: LP 101, 102 (Elementary Portuguese U). 3 semester hours credit for each semester.

Russian

LR 101, 102 Elementary Russian U

An introduction to contemporary spoken Russian. The purpose is to acquire a modest conversational and writing ability and skill in reading Russian of average difficulty, such as short stories and newspaper articles. 3 semester hours credit for each semester.

LR 151, 152 Intermediate Russian UG

A continuation of Elementary Russian. Includes a systematic review of grammatical structure, an introduction to Russian literature, and progressive development of conversational and writing skills. Prerequisite: LR 101, 102 (Elementary Russian U), or its equivalent. 3 semester hours credit for each semester.

Spanish

LS 101, 102 Elementary Spanish U

An audio-lingual approach to the essentials of Spanish pronunciation and grammar. Reading and writing proficiency will be stressed. 3 semester hours credit for each semester.

LS 151, 152 Intermediate Spanish UG

A review of the important aspects of correct Spanish pronunciation will accompany the development of an oral and aural command of the language. Aspects of Hispanic culture will be introduced. Prerequisite: LS 101, 102 (Elementary Spanish U). 3 semester hours credit for each semester.

LS 181, 182 Advanced Spanish UG

This course offers a more detailed study of important points of Spanish grammar, with attention given to increasing vocabulary, to correct pronunciation, and to improving audio-oral skills. More advanced reading selections and continued presentation of cultural aspects will provide opportunity for acquaintance with the Hispanic world. Prerequisite: LS 151, 152 (Intermediate Spanish UG). 3 semester hours credit for each semester.

LS 201, 202 Survey of Spanish Literature UG

This course involves a survey of Hispanic literature from earliest times to the present. Major literary movements, works, and authors will be stressed. Required of all Spanish minors. Prerequisite: LS 181, 182 (Advanced Spanish UG). 3 semester hours credit for each semester.

LS 281 Spanish Conversation and Civilization UG

This course is designed to improve and increase oral proficiency in the Spanish language. Topics of discussion will be drawn from assigned readings of Spanish Civilization and colloquial aspects of the language. Prerequisite: LS181, 182 (Advanced Spanish UG), or its equivalent. 3 semester hours credit.

LS 282 Advanced Spanish Composition and Grammar Review UG

This course is designed to develop correct usage and style in Spanish composition. Selected literary passages will be used as a basis for analysis and example towards effective self-expression. Prerequisite: LS 181, 182 (Advanced Spanish UG), or its equivalent. 3 semester hours credit.

ML 390 Research Problem in Modern Languages UG

A special project for advanced and Honors students with a Modern Language concentration may be worked out with the Chairman of the Modern Foreign Languages Department. Credit and hours to be arranged.

PHILOSOPHY

Associate Professor: Donald R. Dunbar, Chairman

Visiting Professor: Edwin P. Booth

Associate Professor: Joseph J. Corkery

Assistant Professor: Achille A. Joyal

PL 380 Introduction to General Philosophy U

This course is an introduction to logical and critical reflection upon the opinion of philosophers concerning the meaning, terminology, and basic problems of philosophy, which should enable the student to begin structuring his own thinking. Required of all students. 3 semester hours credit.

PL 400 Comparative Religions UG

This course is designed to introduce the students to the tenets of the major religions. 3 semester hours credit.

PL 410 Existentialism UG

A critical study of the existentialist movement in philosophy, concentrating on the concepts of human existence, anxiety, freedom, decision, introduction to phenomenology. Readings from Kierkegaard, Heidegger, Sartre, Jaspers, Camus. 3 semester hours credit.

PL 420 History of Modern Philosophy UG

A critical and selective study of modern philosophers. An introductory study of St. Thomas Aquinas; study of modern philosophers from Descartes through Kant. 3 semester hours credit.

PL 430 History of Ancient Philosophy UG

A critical study of Greek philosophers from Thales through Aristotle, concentrating on Plato and Aristotle. 3 semester hours credit.

DIVISION OF NATURAL SCIENCES AND MATHEMATICS

Dr. Frank Joseph Hilferty, Director

The Division of Natural Sciences and Mathematics is comprised of the Departments of Biological Sciences, Chemistry, Earth Sciences and Geography, Mathematics and Physics.

DEPARTMENT OF BIOLOGICAL SCIENCES

Professor Kenneth Jesse Howe, Chairman

Commonwealth Professor and Dean of the Graduate School: Frank Joseph Hilferty

Professors: James Robert Brennan, Elizabeth Fahey Cirino, Lawrence Bronislaw Mish, William James Wall, Jr.

Associate Professor: Walter Arthur Morin

Assistant Professor: Bradley Sherwood Bowden, Walter Milton Hewitson

Visiting Lecturer: Sabit Gabay

The Department of Biological Sciences offers a program leading to the degree of Master of Arts in Biology, which is designed to prepare qualified students for teaching, research, or further graduate study. A concentration in biology is also available in conjunction with the degree of Master of Education in Secondary Education, which is especially useful for teachers who desire to broaden their background in biology.

Departmental Prerequisites:

Students accepted for graduate work in the Department of Biological Sciences are required to have completed one semester of general botany and one semester of general zoology (or six semester hours credit for a general biology course which includes both general botany and general zoology), and one year each of college mathematics, chemistry, and physics.

In addition, persons matriculating for the Master of Arts degree must also have had adequate preparation in biology (usually a biology major), as well as organic chemistry and calculus.

Graduate students accepted with course deficiencies will be required to take prescribed undergraduate work without credit towards the degree.

BI 110 General Botany U

An introduction to the principles of biology with special reference to the botanical aspects, this course emphasizes the structure, function, and classification of plants. The following topics are considered: structure of cells, tissues, and organs; photosynthesis; water relations; respiration; growth; reproduction; heredity; disease; evolution; and a general survey of the plant kingdom. BI 110 and BI 120 constitute a coordinated course in general biology and students are expected to complete both semesters. 3 semester hours credit.

BI 120 General Zoology U

An introduction to the principles of biology with special reference to zoological aspects, this course emphasizes the following topics: protoplasm and the cell, taxonomy, histology, parasitology, vertebrate and invertebrate anatomy and physiology, embryology, ecology, evolution, and a general survey of the animal kingdom. BI 110 and BI 120 constitute a coordinated course in general biology and students are expected to complete both semesters. BI 120 may be taken before BI 110. 3 semester hours credit.

BI 281 Invertebrate Zoology UG

The biology of invertebrates is studied with emphasis on comparative morphology, taxonomy, physiology, natural history, and evolution. Representatives of the principal classes of each phylum are considered. Prerequisite: BI 120 (General Zoology U), or permission of the Instructor. 3 semester hours credit.

BI 282 Comparative Chordate Anatomy UG

An ontogenetic and phylogenetic survey is made of chordate gross anatomy, supplemented by laboratory dissections of representative species. Emphasis is placed on the changes in chordate structure and biology that comprised their evolution, and an interpretation made of the whole series of change in the light of our modern knowledge of how evolution is brought about. Prerequisite: BI 120 (General Zoology U), or permission of the Instructor. 3 semester hours credit.

BI 283 Field Natural History UG

The identification, classification, and natural history of local plants and animals, and techniques of collecting and preserving specimens are included in this course. Prerequisite: BI 110 (General Botany U) and BI 120 (General Zoology U); or permission of the Instructor. 2 semester hours credit.

BI 292 Plant Anatomy UG

This course includes a study of structural features of extant vascular plants from ontogenetic and phylogenetic viewpoints. Special attention is given to recent developments in comparative plant anatomy, references to nonvascular and extinct vascular plants, correlation of microscopic feature with gross structure, the value of plant anatomy to other sciences and industry, and introductory microtechnique. Prerequisite: BI 110 (General Botany U), or permission of the Instructor. 3 semester hours credit.

BI 300 Biochemistry UG

A study is made of the functions, chemical transformations, and

attendant energy changes associated with basic biological phenomena. Prerequisite: BI 110 (General Botany U), BI 120 (General Zoology U), CH 131-132 (General Chemistry U), and MA 103-104 (Mathematical Analysis I and II U); or permission of the Instructor. 3 semester hours credit.

BI 381 Animal Physiology UG

General physiological principles common to invertebrates and vertebrates are discussed with major emphasis given to: cellular organization, transport phenomena, cellular respiration, secretion, irritability, contraction, and integrated functions in animals. Prerequisite: BI 120 (General Zoology U), CH 131-132 (General Chemistry U), PH 181-182 (Elements of Physics U), and MA 103-104 (Mathematical Analysis I, II U); or permission of the Instructor. 3 semester hours credit.

BI 393 Genetics UG

An intensive study is made of the basic principles of heredity and variation in plants and animals. Emphasis is placed on methods of problem solving and the historical background of the science. Prerequisite: BI 110 (General Botany U), BI 120 (General Zoology U), and MA 103-104 (Mathematical Analysis I, II U); or permission of the Instructor. 3 semester hours credit.

BI 394 Limnology UG

A field course designed to acquaint the student with principles governing the distribution of species with their aquatic milieu. The application or laboratory phase will be developed around the facilities afforded by the Carver Pond Field Station and the Bioassay Laboratory. Course content will include environmental analysis, life cycles of some dominant forms, taxonomy of the aquatic biota, and pollution ecology. Prerequisite: BI 110 (General Botany U) and BI 120 (General Zoology U); or permission of the Instructor. 3 semester hours credit.

BI 395 Microbiology UG

This course provides an introduction to the cultivation, growth, and identification of micro-organisms significant to man. Special emphasis is directed toward laboratory techniques. Prerequisite: BI 110 (General Botany U), BI 120 (General ZoologyU), and CH 131-132 (General Chemistry U), or permission of the Instructor. 3 semester hours credit.

BI 397 Plant Physiology UG

This course provides an introduction to the growth and function of plants including cellular physiology, water relations, metabolism, respiration, photosynthesis, nutrition, and the influence of en-

vironment on the growth and development of higher plants. Prerequisite: BI 110 (General Botany U) and CH 131-132 (General Chemistry U), or permission of the Instructor. 3 semester hours credit.

BI 405 Systematics and Evolution UG

In this course consideration is given to contemporary taxonomic problems in the light of evolutionary phenomena. Emphasis is placed on such mechanisms of specialization as mutations, variation, hybridization, polyploidy, isolation, natural selection, and genetic drift. Prerequisite: BI 110 (General Botany U), BI 120 (General Zoology U), and BI 393 (Genetics UG); or permission of the Instructor. 3 semester hours credit.

BI 410 Marine Biology UG

A study is made of the marine ecosystem. Emphasis is placed on factors involved in growth, diversity, and distribution of populations occupying the natural marine habitats of the Eastern Atlantic Coast. Prerequisites: BI 110 (General Botany U) and BI 120 (General Zoology U), or permission of the Instructor. 3 semester hours credit.

BI 411 Ecology UG

The dynamics and evolution of populations, communities, and ecosystems are emphasized. Students will become acquainted with the communities of Southeastern Massachusetts through field studies which make up a major portion of the laboratory requirement. Prerequisite: BI 110 (General Botany U) and BI 120 (General Zoology U), or permission of the Instructor. 3 semester hours credit.

BI 413 Mycology UG

An introduction to the fungi: their structure, taxonomy, physiology, and genetics. The techniques and importance of the fungi in solving biological problems will be stressed. Prerequisite: BI 110 (General Botany U), BI 393 (Genetics UG), and CH 131-132 (General Chemistry U); or permission of the Instructor. 3 semester hours credit.

BI 422 Radiation Biology UG

This course provides a study of unstable isotopes and the types of radiation in the electromagnetic spectrum, with emphasis placed on their biological effects, use in the field of biology, and precautions necessary for utilization. Prerequisite: BI 110 (General Botany U), BI 120 (General Zoology U), CH 131-132 (General Chemistry U), MA 103-104 (Mathematical Analysis I and II U), and PH 181-182 (Elements of Physics U); or permission of the Instructor. 3 semester hours credit.

BI 427 Cytology UG

A detailed study is made of cellular morphology and organization including descriptions of major intracellular processes and the functional significance of cellular structures. Prerequisite: BI 110 (General Botany U) and BI 120 (General Zoology U), or permission of the Instructor. 3 semester hours credit.

BI 481, 482 Cellular and Molecular Biology UG (NSF)

A modern approach to the science of biology involving the study of cellular structure and function. Major emphasis is given to basic metabolism and biochemistry, ultrastructural cytology, molecular genetics, and cellular physiology. A survey of the principles important to all life will be stressed as well as the historical development of the concepts and the dynamic and changing nature of biological science. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit for each semester.

BI 500 Research in the Biological Sciences G

This course is designed to provide experience in biological investigation at the graduate level. The research will usually be directed by a faculty member having special training in the subject under study. Prerequisite: Permission of the Faculty of Biology. (Please Note: Students engaging in this course will ordinarily be expected to have completed one year each of college chemistry, mathematics and physics in addition to appropriate courses in biology.) Credits and hours to be arranged.

BI 501, 502 Graduate Thesis G

Credit and hours to be arranged with the Department of Biological Sciences.

BI 520 Neurophysiology G

The physiology of central and peripheral nervous systems, receptors and muscles, considered in both vertebrates and invertebrates. Prerequisite: BI 120 (General Zoology U), BI 381 (Animal Physiology UG), CH 131-132 (General Chemistry U), MA 103-104 (Mathematical Analysis I and II U), and PH 181-182 (Elements of Physics U); or permission of the Instructor. 3 semester hours credit.

BI 530 Entomology G

This course is a study of the biology and control of insects with emphasis on the taxonomy of the orders and major families. Formation of an identified insect collection is required. Prerequisite: BI 110 (General Botany U) and BI 120 (General Zoology U); or permission of the Instructor. 3 semester hours credit.

DEPARTMENT OF CHEMISTRY

Professor Wilmon Blackmar Chipman, Chairman

Associate Professors: Henry Owen Daley, Jr., Margaret Borden Souza

Assistant Professors: Vahé Mardiros Marganian, Joseph Michael Pagano

CH 241 Inorganic Quantitative Analysis UG

A study will be made of the classical and modern methods for the volumetric and gravimetric determination of elements and groups. Prerequisite: CH 132 (General Chemistry with Qualitative Analysis U), or permission of the Instructor. 4 semester hours credit.

CH 242 Principles of Inorganic Chemistry UG

Modern structural concepts of inorganic chemistry and descriptive inorganic chemistry are presented at an intermediate level. Prerequisite: CH 241 (Inorganic Quantitative Analysis UG), or permission of the Instructor. 3 semester hours credit.

CH 250 Instrumentation UG

The physical chemistry basic to modern analytical instrumentation will be discussed as the basis for the study of instrumental analysis. Lecture and laboratory. Prerequisite: CH 132 (General Chemistry with Qualitative Analysis U), or permission of the Instructor. 3 semester hours credit.

CH 252 Recent Developments in Inorganic Chemistry UG

Current topics, such as ligand field theory of coordination complexes, molecular orbital theory, stereochemistry, crystallography, rare-earth elements, nonaqueous solvents, spectroscopy, and kinetics of inorganic reactions will be treated, according to the interests of the students. Prerequisite: CH 132 (General Chemistry with Qualitative Analysis U). 3 semester hours credit.

CH 343, 344 Organic Chemistry UG

A survey will be made of the chemistry of organic compounds from the points of view of synthesis, structure and reactions, including some study of the mechanisms of organic reactions. Prerequisite: CH 132 (General Chemistry with Qualitative Analysis U), or permission of the Instructor. CH 343 (Organic Chemistry UG) is prerequisite for CH 344 (Organic Chemistry UG). 4 semester hours credit each.

CH 381, 382 Physical Chemistry UG

A study will be made of the laws governing the physical and chemical behavior of compounds. Prerequisite: CH 132 (General Chemistry with Qualitative Analysis U) and MA 210 (Calculus I UG). CH 381 is prerequisite to CH 382. 4 semester hours credit each.

CH 390 Research Problems in Chemistry UG

Special projects for advanced students desiring individual instruction in the methods of chemical research. Prerequisite: permission of the department. Credit and hours to be arranged.

CH 440 Advanced Organic Chemistry G

This course will include selected topics in organic chemistry such as physical organic chemistry, mechanisms, alicyclic and heterocyclic chemistry or advanced synthetic methods. Prerequisite: CH 343, 344 (Organic Chemistry UG), and permission of the Instructor. 3 semester hours credit.

CH 441, 442 Qualitative Organic Analysis UG

This course will review the reactions of organic compounds with emphasis on reactions of importance for classification and identification. Laboratory work involves the identification of both simple compounds and mixtures. Prerequisite: CH 344 (Organic Chemistry UG). 3 semester hours credit for each semester.

CH 444 Advanced Inorganic Chemistry G

Principles of inorganic chemistry will be presented at an advanced level. Prerequisite: CH 381 and CH 382 (Physical Chemistry UG). CH 382 may be taken concurrently. 3 semester hours credit.

CH 450 Instrumental Analysis G

Theory and practical application of instrumental methods are applied to chemical analysis. The course will include pH measurements, electrodeposition, potentiometry and spectroscopy. Prerequisite: CH 381 and CH 382 (Physical Chemistry UG). CH 382 may be taken concurrently. 3 semester hours credit.

CH 461, 462 General Biochemistry UG

A study will be made of the chemical components of living matter and the major processes of cellular metabolism. Prerequisite: CH 343, 344, and permission of the Instructor. 3 semester hours credit for each semester.

CH 480 Special Topics in Physical Chemistry G

Topics of an advanced nature in physical chemistry will be selected, with an emphasis on recent developments in the field. (Possible topics: N.M.R., E.S.R., elementary quantum mechanics, statistical thermodynamics). Prerequisite: CH 382, and permission of the Instructor. 3 semester hours credit.

CH 481, 482 Modern Structural Chemistry G

The structural approach, based on the concept of electron pairing in molecular orbitals, will be applied to inorganic and, to a lesser extent, organic chemistry. Topics to be covered will include: electronic structure and chemical bonding, spectroscopy, acid-base chemistry, stereochemistry, equilibrium, elementary thermodynamics, electrochemistry and modern nuclear chemistry. 3 semester hours credit each semester.

CH 581 Modern Organic Chemistry G

A study of organic chemistry from a theoretical viewpoint which excludes most of synthetic organic chemistry from consideration. Topics to be covered will include: the structure and charge distribution of functional groups, structure proof by chemical and physical methods, stereochemistry, inductive effects, resonance, steric effects, and organic reaction mechanisms. 3 semester hours credit.

CH 582 Biochemistry G

A study of the chemical components of living matter and of the major processes of cellular metabolism, including the fundamental chemical characteristics of biological compounds and enzymatic reactions. 3 semester hours credit.

CH 583 Dynamic Organic Chemistry G

A survey of organic chemistry from a mechanistic viewpoint. Topics to be studied will include: kinetics of organic reactions, determination of the mechanisms of organic reactions, substitution reactions, elimination reactions, concerted reactions, molecular rearrangements, the reactions of carbonium ions, carbanions and free radicals. 3 semester hours credit.

CH 584 Survey of Biochemical Reactions G

A survey of biochemical reactions from a mechanistic viewpoint. Emphasis will be placed on the study of the mechanism of reactions that are important in biochemical systems. Topics to be studied will include: the role of inorganic ions in biochemistry, mechanism of enzyme action, oxidative phosphorylation and elec-

tron transport, biogenetic schemes, and the transfer of genetic information. A knowledge of organic chemistry (CH 583 or equivalent) is a prerequisite for this course. 3 semester hours credit.

CH 585 Atomic and Molecular Structure G

A modern approach to atomic and molecular structure will be developed and applied to selected cases from inorganic and organic chemistry. Topics to be covered will include the following: atomic structure, the molecular orbital approach to molecular structure, antibonding orbitals, introductory ligand field theory, geometrical and optical isomerism, conformational analysis, correlation of structure and reactivity, and the conservation of orbital symmetry. 3 semester hours credit.

DEPARTMENT OF EARTH SCIENCES AND GEOGRAPHY

Professor Emanuel Maier, Chairman

Professor: Agrippina Anne Macewicz

Associate Professors: Robert Francis Boutilier, Ralph Sanborn Fellows, Ira Ellsworth Furlong

Assistant Professors: Richard Enright, Marilyn Hayden Furlong

Instructor: Robert John Dillman

Visiting Lecturers: Richard Barber, Joseph Chase, James Moir, Leonard Solomon

ES 181 Physical Geology U

This course involves a study of the constitution of the earth together with an evaluation of the processes acting on and within it. Field trips are an integral part of the course. This course may be followed by either ES 182 or ES 192 in the second semester. 3 semester hours credit.

ES 182 Physical Geography U

In this course the characteristics, classification, origin, and distribution of the earth's physical phenomena such as atmosphere, climate, vegetation, and soils are studied, as well as the distribution of population. Emphasis is placed upon developing an understanding and appreciation of the relationships between the physical features of the earth and man. Field trips. 3 semester hours credit.

ES 192 Historical Geology UG

Historical Geology is a study of the major geological events on the earth as revealed by the structure and composition of the rocks and the evolution of the fossil record. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

ES 200 Fundamentals of Geography U

Essentially combines ES 181 and ES 182 into a single semester. Designed especially for majors in Elementary Education. 3 semester hours credit.

ES 252 Geography of Anglo-America UG

In this course the fundamentals of geography are applied in the analysis of geographic regions of Anglo-America. This course is designed to give familiarity with the methods of securing, organizing, and presenting geographical data. Prerequisite: ES 181 (Physical Geology U), ES 182 (Physical Geography UG), or ES 200 (Fundamentals of Geography U). 3 semester hours credit.

ES 301 Astronomy I UG

The major concern of this course is a study of the earth, moon, planets, sun, and other stars and galaxies. Emphasis is placed on such topics as the new findings of radio astronomy and the uses of earth satellites. Day and evening observations. 3 semester hours credit.

ES 302 Astronomy II UG

This course deals with stars, galaxies, stellar evolution, instrumentation, and cosmology. Day and evening observations. 3 semester hours credit.

ES 303 Meteorology UG

This is an introductory course in which atmospheric behavior, weather elements, and cyclonic phenomena such as hurricanes, tornadoes, and frontal circulations are analyzed. 3 semester hours credit.

ES 304 Climatology UG

A study will be made of climatic elements and climatic controls and their application to the analysis of climatic regions of the world. Prerequisite: ES 303 (Meteorology UG). 3 semester hours credit.

ES 305 Oceanography I UG

This course will present a survey of marine biology and chemistry with emphasis on current research as well as past achievements in each field. 3 semester hours credit.

ES 306 Oceanography II UG

A study will be made of ocean water temperature, circulation,

shore lines, ocean basins, and mineral resources. 3 semester hours credit.

ES 315 Cartography UG

This course aims to train students in the graphic presentation of geographic data, and acquaint them in the latest techniques of map construction. 3 semester hours credit.

ES 353 Urban Geography UG

The geographic aspects of the city, including location, function, land use patterns, and tributary areas, will be analyzed. Prerequisite: ES 182 (Physical Geography UG), or ES 200 (Fundamentals of Geography U), or AN 307 (Urban Cultural Dynamics UG), or SO 306 (Urban Sociology UG); or permission of the Instructor. 3 semester hours credit.

ES 362 Economic Geography UG

In this course the mineral, plant, and soil resources of the world are studied with emphasis on their location and present and potential uses. Manufacturing regions and the transportation systems that link the various regions of the world are also considered. Prerequisite: ES 181 (Physical Geology U), or ES 182 (Physical Geography UG), or ES 200 (Fundamentals of Geography U); or permission of the Instructor. 3 semester hours credit.

ES 372 Mineralogy UG

This course will present an introduction to crystallography followed by the determinative and physical mineralogy of important rocks and ore minerals. Prerequisite: A knowledge of chemistry. 4 semester hours credit.

ES 462 Geology of North America UG

Each of the physiographic provinces of North America will be studied in terms of their geomorphology and structural relationships. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

ES 464 Economic Geology UG

This course considers the geochemical and physical processes that produce metallic and non-metallic mineral deposits. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

ES 475 Paleontology UG

Topics covered will be a survey of the fossil record and an introduction to invertebrate and vertebrate paleontology. Emphasis will

be placed on the most important phyla and environmental relationships. Prerequisite: ES 181 (Physical Geology U) and ES 192 (Historical Geology UG), or background in Biology. 3 semester hours credit.

ES 483 Structural Geology UG

This course consists of a study of the architecture of the earth as related to rock structures, their origin, and description. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

ES 484 Geomorphology UG

Emphasis will be placed on a study of the relationships between gradational and tectonic forces and the resulting surface configuration of the earth. Prerequisite: ES 181 (Physical Geology U), and ES 182 (Physical Geography U). 3 semester hours credit.

ES 502 Natural Resource Management G

This course is devoted to a detailed examination of the occurrence, exploitation and conservation of natural resources, including minerals, soils, water, forests, grasslands, fisheries, wildlife, recreation areas and scenery. Public and private conservation policy is examined against current technical and philosophical developments. Emphasis is placed on conservation in the United States. Prerequisite: ES 200 (Fundamentals of Geography U) and ES 252 (Geography of Anglo-America UG), or ES 181 (Physical Geology U) and ES 182 (Physical Geography UG), and permission of the Instructor for undergraduates. 3 semester hours credit.

ES 504 Geography of USSR G

The geography of environment, resources and population are studied in relation to history and the present economic and social system of the Soviet Union. Prerequisite: ES 200 (Fundamentals of Geography U) and ES 252 (Geography of Anglo-America UG), or ES 181 (Physical Geology U) and ES 182 (Physical Geography UG), and permission of the Instructor for undergraduates. 3 semester hours credit.

ES 513 Special Topics in Geography G (EPDA)

An introduction to the various systematic geography disciplines upon which the High School Geography Project is based. Lectures will be given by specialists in the various disciplines. Laboratories and field trips. This course is open only to participants in the EPDA College-School Cooperative Institute. 6 semester hours credit.

ES 514 Special Topics in the Earth Sciences G (NSF)

An introduction to the various disciplines upon which the Earth Science Curriculum Project is based. Lectures will be given by specialists in the disciplines. Laboratories and field trips. This course is open only to participants in the National Science Foundation College-School Cooperative Institute. 6 semester hours credit.

DEPARTMENT OF MATHEMATICS

Associate Professor Joseph Biggi Chiccarelli, Chairman

Associate Professor and Academic Dean: Lee Francis Harrington

Associate Professors: Murray Abramson, Robert Joseph Bent, Robert Elwood Lemos, Henry Myron Mailloux

Assistant Professors: Walter Joseph Gleason, Michael Makokian, Richard Wayne Quindley, Ignatius Philip Scalisi, Donald Clayton Simpson

Instructors: Frank Joseph Lambiase, Thomas Eugene Moore, Robert Francis Sutherland

MA 106 College Mathematics II U

Algebraic functions, exponential and logarithmic functions, trigonometry, theory of equations, sequences and series. 3 semester hours credit.

MA 210 Calculus I UG

This course includes inequalities, relations, functions, limits and continuity, the differentiation of algebraic functions, with applications to geometry, maxima and minima. Prerequisite: MA 106 (College Mathematics II U), or equivalent. 3 semester hours credit.

MA 211 Calculus II UG

This course is a continuation of Calculus I. The definite integral, differentiation and integration of the trigonometric and exponential functions, methods of integration, applications. Prerequisite: MA 210 (Calculus I UG), or equivalent. 3 semester hours credit.

MA 212 Calculus III UG

This course is a continuation of Calculus II. Methods of integration and applications, partial differentiation, infinite series, multiple integration, applications. Prerequisite: MA 211 (Calculus II UG), or equivalent. 3 semester hours credit.

MA 301 Abstract Algebra I UG

Introduction to the theory of rings, integral domains and fields through a study of integers, rational numbers, real numbers, complex numbers and polynomials; elementary group theory. 3 semester hours credit.

MA 303 Number Theory UG

Development of the number system, the Euclidean Algorithm and its consequences, theory of congruences, number-theoretic functions, Diophantine equations, quadratic residues. 3 semester hours credit.

MA 307 Linear Algebra I UG

Vectors and analytic geometry of space, vector spaces, systems of linear equations, determinants, linear transformations, and matrices. 3 semester hours credit.

MA 308 Linear Algebra II UG

Linear transformations and matrices, the algebra of matrices, bilinear and quadratic forms, polynomial rings, characteristic values and vectors of linear transformations, similarity of matrices, applications. Prerequisite: MA 307 (Linear Algebra I UG), or equivalent. 3 semester hours credit.

MA 316 Differential Equations UG

Ordinary differential equations of first and second order, linear differential equations with constant coefficients, the Laplace transform, applications. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

MA 325 Foundations of Geometry UG

A study of axiomatic systems, finite geometries, axiomatic Euclidean geometry, various non-Euclidean geometries, Klein's

Erlangen program, transformation groups, invariant properties. 3 semester hours credit.

MA 326 Projective Geometry UG

The principle of duality, perspectivity, projectivity, harmonic sets, cross ratio, transformation groups, projective theory of conics. 3 semester hours credit.

MA 331 Theory of Sets and Elementary Logic UG

This course includes truth tables, rules of inference, method of proof, the algebra of sets, graphs of functions, and cardinal numbers. Prerequisite: MA 211 (Calculus II UG) or permission of the Instructor. 3 semester hours credit.

MA 332 History of Mathematics UG

The development of elementary mathematics from ancient to modern times. 3 semester hours credit.

MA 350 Fundamental Concepts of Mathematics UG

An introduction to the most fundamental concepts of analysis, geometry, and algebra. Basic elements of set theory, a survey of the real and complex number systems, topics from number theory, permutations and combinations, plane analytic geometry, functions, sequences. 3 semester hours credit.

MA 351 Modern Mathematics for Elementary School Teachers I UG

The objective of this course is to provide minimum background in modern mathematics for teachers of grades 4, 5, 6. This course will be devoted to a study of base positional notation and arithmetic of different bases, elementary set theory and logic, the real number system and its subsystems. 3 semester hours credit.

MA 352 Modern Mathematics for Elementary School Teachers II UG

This course is designed for additional background in modern mathematics for teachers who have successfully completed the Level I course or its equivalent. This course will be devoted to a continuation of the study of the number systems of arithmetic and their applications to algebra and informal geometry. Prerequisite: MA 351 (Modern Mathematics for Elementary School Teachers I UG). 3 semester hours credit.

MA 353 Modern Algebra for Elementary School Teachers UG

The integers, integral domains, and topics from number theory; equivalence relations and congruences; real numbers, complex numbers, and fields; polynomials, group theory. Prerequisite:

MA 352 (Modern Mathematics for Elementary School Teachers II UG), or equivalent. 3 semester hours credit.

MA 354 Modern Geometry for Elementary School Teachers UG

Plane geometric figures, curves and surfaces, congruence, measures, coordinate geometry, parallelism and similarity, non-Euclidean geometries. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG), or equivalent. 3 semester hours credit.

MA 355 Probability and Statistics for Elementary School Teachers UG

Permutations and combinations, finite sample spaces, random variable, binomial distributions, statistical applications. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG), or equivalent. 3 semester hours credit.

MA 356 Calculus for Elementary School Teachers UG

Graphs and curves, functions, differentiation and integration of algebraic and transcendental functions, applications. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG). 3 semester hours credit.

MA 401 Advanced Calculus I UG

This course includes fundamental theorems on limits and continuity, properties of derivatives, theory of integration. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

MA 403 Probability Theory UG

Permutations and combinations, calculus of probabilities, discrete and continuous random variables, expectation, elementary probability distributions, methods of estimation, sample spaces. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

MA 407 Topology UG

The elements of point set topology: closed sets and open sets in metric spaces, continuous mappings, connectedness, separation theorems and homotopy, applications. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

MA 412 Mathematical Statistics UG

Fundamental statistical methods, tests of significance and estimation based on large or small samples, simple correlation, linear regression, statistical inference, sequential analysis. Prerequisite:

MA 403 (Probability Theory UG), or equivalent. 3 semester hours credit.

MA 415 Numerical Analysis UG

Solution of algebraic and transcendental equations: general iteration method, Newton-Raphson method. Approximation of functions and curve-fitting: Lagrange interpolation formula, Newton's forward difference method, method of least squares, orthogonality. Numerical integration, Euler-Cauchy technique. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

MA 422 Advanced Calculus II UG

Functions of several variables, partial derivatives, multiple integrals, sequences and series. Prerequisite: MA 401 (Advanced Calculus I UG), or equivalent. 3 semester hours credit.

MA 440 Complex Analysis I UG

Analytic functions of a complex variable, differentiation and integration in the complex plane, Cauchy's theorems, infinite series, Laurent expansions, theory of residues. Prerequisite: MA 422 (Advanced Calculus II UG), or equivalent. 3 semester hours credit.

MA 465 Applied Mathematics UG

The partial differential equations of physics, orthogonal functions, integral transforms. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

MA 490 Research Problems in Mathematics UG

Special projects for advanced students desiring individual instruction in the methods of mathematical research. Prerequisite: Permission of the department. Credit and hours to be arranged.

MA 585 Analytic Euclidean Geometry G (NSF)

Coordinates, graphs, vectors, the straight line and conic sections, planes and quadric surfaces, vector spaces and transformations of coordinates, matrices, determinants, orthogonal transformations, quadratic forms. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

MA 586 Analytic Projective Geometry G (NSF)

The projective plane, natural homogeneous coordinates, vector theory, generalized coordinate systems and linear transformations, classification theories and the Erlanger program, metric complex

geometry, introduction to non-Euclidean geometry. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

DEPARTMENT OF PHYSICS

Professor Richard Frank Calusdian, Chairman

Professors: Felix Stanley Palubinskas, George Alexander Weygand

Associate Professor: Raymond Lorenzo Blanchard

PH 243, 244 General Physics UG

A calculus-based study of the phenomena of mechanics, heat, sound, electricity, magnetism, and light. Prerequisite: MA 210 (Calculus I UG), MA 211 (Calculus II UG). PH 243 is a prerequisite to PH 244. 4 semester hours credit.

PH 371 Biophysics, Macroscopic Aspects UG

Study of the structure, function, and control of the skeletal, muscular, nervous, blood-vascular and other body systems of living things, particularly the human being, on the macroscopic or large-system level. This course may be taken independently of PH 372. Prerequisite: Satisfactory completion of a college-level course in physics and in biology, or the consent of the Instructor. 3 semester hours credit.

PH 372 Biophysics, Microscopic Aspects UG

Study of the structure, function, and control of living things, particularly the human being, on the microscopic or molecular level. This course may be taken independently of PH 371. Prerequisite: Satisfactory completion of a college-level course in physics and in biology, or the consent of the Instructor. 3 semester hours credit.

PH 381 Thermal Physics UG

Thermodynamics, kinetic theory of gases, and statistical mechanics. Prerequisite: PH 244 (General Physics UG). 3 semester hours credit.

PH 385 Optics UG

After careful study of geometric optics, the student will be introduced to the wave theory of interference, diffraction, polarization, and double refraction, and to the propagation of light in dispersion media. Laboratory projects are included as a part of this course. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

PH 386 Nucleonics UG

A study of nuclear instrumentation, the fission process and its applications, nuclear reactors, radiation shielding, radioactive waste disposal, and the application of nuclear technology to specific areas of the physical sciences. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

PH 387 Modern Physics UG

Atomic and nuclear structure, elementary particles, kinetic theory, relativity, quantum theory, introduction to quantum mechanics, and nuclear theory. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

PH 388 Electricity and Magnetism UG

Electrostatic and magnetic theory, direct and alternating current circuits, introduction to Maxwell's equations and radiation. Prerequisite: PH 243, 244 (General Physics UG). 4 semester hours credit.

PH 389 Mechanics UG

This course introduces the student to a vector treatment of mechanics: forces and moments; kinematics and dynamics of point masses and of rigid bodies; work, kinetic energy and potential energy; impulse and momentum; and mechanical vibrations. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

PH 390 Research Problems in Physics UG

This course provides the opportunity for advanced students to investigate individual topics not usually covered in the required curriculum. Prerequisite: Permission of the department. Credit and hours to be arranged.

PH 392 Electronics UG

Fundamentals of semiconductor and vacuum tube electronics will be presented and supported with physical principles. Laboratory experiments will provide a working understanding of electronic measurements and basic electronic circuits. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

PH 402 Quantum Mechanics UG

This course treats the historical and physical basis of quantum mechanics. Among the topics included are: the wave nature of matter; the uncertainty principle; wave functions; operators, expec-

tation values of dynamical observables; the Schrodinger equation. These concepts will be applied to the electron, the hydrogen atom, the multi-electron atoms and radiation. Prerequisite: PH 387 (Modern Physics UG) or permission of the Instructor. 3 semester hours credit.

PH 403 Mathematical Physics UG

The purpose of this course is to develop the students' ability to solve many of the types of problems arising in modern physics and chemistry. Topics to be included are: Linear differential equations, vector analysis, partial differential equations, Sturm-Liouville theory, Fourier series, Laplace transform, and orthogonal functions. 3 semester hours credit.

PH 583 Physics of the Atom G

This course is the study of the atomic view of matter and radiation. Among the topics covered are: the kinetic theory of gases, theory of the electron, Bohr's theory of the atom, many electron atoms, theory of molecules and solids, classical theory of radiation, the quantum theory of radiation and spectra, and the theory of relativity. 3 semester hours credit.

PH 584 Physics of the Nucleus and Elementary Particles G

This course is a study of the nucleus and the relationship of the elementary particles. Among the topics covered are: nuclear structure, radioactivity, nuclear reactions, nuclear accelerators, conservation laws, symmetry and invariance principles, unified view of the elementary particles, and cosmic rays. 3 semester hours credit.

PH 585 Physics of the Solid State G (NSF)

This course will present a unified treatment of the basic models used to describe solid state phenomena. Topics to be covered will include: crystal structure; electric, magnetic and thermal properties of matter; transport properties of metals and semi-conductors; band theory; super conductivity. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

DIVISION OF PROFESSIONAL EDUCATION

Dr. Stanley Luther Clement, Director

The Division of Professional Education is comprised of the Departments of Education, Instructional Media, Health and Physical Education for Men, Health and Physical Education for Women, and Library Science.

DEPARTMENT OF EDUCATION

Professor Stanley Luther Clement, Chairman

Professor and Dean of Undergraduate Studies: Vincent James DiNardo

Professors: Robert Alphonse Daniel, Robert Douglas MacCurdy, John Peter Deasy

Associate Professors: Philip Ryan Dooley, Warren David Englund, Ruth Mary Gamson, Paul Francis Kelley, Evelyn Ruth Lindquist, Rita Kohler Nadal, Doris Margaret Sprague, Dorothy Sherman Wood

Assistant Professors: Anthony Vincent DeLeo, Marian C. Doyle, Mary Agnes Doyle, Henry Joseph Fanning, Jr., Margaret Eleanor Farrell, Robert Edmund Fitzgibbons, James Frank Francis, John Joseph Kent, Isabelle Bragg King, Vincent James Worden

Instructors: John W. Jones, Wayne Richard Phillips, Gerald Joseph Thornell, Claire Mary Walker, Margaret Mary Wallace, Raymond John ZuWallack

Visiting Lecturers: Barbara Phillips Aalto, Ronald Martin Bryant, John Donato DiSanto, Robert Payne Fox, William Joseph Freeman, Paul Laurence Gaines, Murray Bernard Gerber, David Stanley Goodenough, Richard Evariste Gray, Williston Marcellous Holbert, Kenneth Leo Johnson, Kenneth Paul Jubett, Grace Doris Keenan, Archibald Kelly, Lawrence George Lambros, Robert Leo Lavoie, Edward James Lynch, Raymond Louis Matthews, Bernard James McKearney, Christopher Joseph Millet, Jr., Patricia McCabe Mosley, Vernon Eugene Oldham, Mercia Carter Pike, Joseph Francis Plouffe, Francis Patrick Powers, Robert William Prendergast, William Joseph Quinlan, John Gammons Read, John Marshall Shaw

Elementary Education

ED 340 Methods and Materials in Elementary Language Arts UG

The new language-focused approach to English in the elementary school from the current findings of linguistics and the modern concepts of English grammar and usage will be stressed. Students will be provided with strategies and ideas for putting theory into practice in teaching the skills and abilities of listening, speaking, and writing through imaginative, meaningful, creative approaches. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 350 Methods and Materials in Elementary Mathematics UG

Through this course students become acquainted with the purpose and content of the contemporary elementary school mathematics curriculum. Emphasis is placed on a study of a wide variety of effective teaching procedures and instructional materials designed to meet the varying abilities within the elementary school classroom. Prerequisite: PY 200 (General Psychology U); and MA 351 (Modern Mathematics for Elementary School Teachers I UG), or MA 107 (College Mathematics for Elementary Majors I); or permission of the Instructor. 3 semester hours credit.

ED 351 Improving Mathematics Instruction in the Elementary School UG

3 semester hours credit.

ED 360 Methods and Materials in Elementary Music UG

A treatment of the music program in the elementary grades including objectives, personnel, planning and the music course of study, pupil characteristics and meeting of individual differences, rhythmic activities, music reading, listening to music, creative music, and general procedures, equipment and materials. Prerequisite: MU 110 (Music Theory U). 3 semester hours credit.

ED 362 Methods and Materials in Elementary Art UG

Emphasis will be placed on the objectives of Art education in the public school curriculum; the role of the classroom teacher in carrying out this program; the nature of the developmental stages in the creative growth of children; the materials, processes, tools and teaching procedures which will foster this growth at the various grade levels; correlation of art with other subject fields; and evaluation of student progress. 3 semester hours credit.

ED 370 Kindergarten Theory and Methods UG

This course treats the philosophy, importance and development of pre-school education. Opportunity is given for the study of how children learn to live together and gain the experience which will lay the foundation for a feeling of adequacy in a group and the new role of school with rich experiences. Curriculum, methods, materials and facilities are examined and evaluated. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 450 Elementary School Curriculum UG

This course will include the roles of the administrators, the teacher, the parent and the child in the development of the changing curriculum in the elementary school. Topics to be included are: the use of action research, in-service training, innovations for curriculum improvement, school organizations, team teaching, the non-graded

school, individualized instruction, the revaluation of objectives, and democratic values. 3 semester hours credit.

ED 452 Methods and Materials in Elementary Education UG

This course is designed to present effective ways of vitalizing the teaching-learning process through challenging learning experiences which emphasize teacher-pupil planning, participation and evaluation. Resource persons, lectures, readings, reports, discussions, demonstration lessons, and displays of materials will be used to show what can be done to adapt the program and procedures of the elementary school to provide for individual differences in the teaching of content subjects. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 460 Methods and Materials in Elementary Science UG

This course will acquaint students with the goals of elementary science instruction and the methods of attaining these aims through such experiences as problem-solving, experimenting, observing, participating in field trips, and other essential activities. An examination will be made of new elementary science programs, current elementary science textbooks, films, and scientific equipment. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 470 Methods and Materials in Elementary Social Studies UG

Emphasis is placed on current trends in the social studies curriculum including the following topics: 1. objectives in social studies instruction; 2. child growth and development characteristics and their implications in teaching; 3. organization of the program; 4. creative pupil-teacher planning; 5. teaching techniques using varied instructional materials and procedures; and 6. evaluating child growth, methods and materials, and the achievement of objectives. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 474 Methods and Materials in Primary Education UG

The course is designed to promote insight into ways of teaching Primary-Grade Children taking into consideration the basic philosophy of their education and promoting an understanding that each child is a unique individual whose whole personality must be developed. Various phases of effective organization and management are discussed. Teaching school subjects will be stressed with emphasis being placed on what to teach, how to teach, the importance of skill development, the necessity for drill, and the use of practical creative techniques. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 550 Practicum in the Elementary School Mathematics Program G

Students accepted will pursue an individualized program of advanced study and research, focused on a substantive topic pertaining to the elementary school mathematics program, and eventuating in an acceptable documented report. Periodic meetings will be scheduled by the Instructor. Each student's program must be approved by the Instructor and the department chairman. Prerequisite: completion of, or enrollment in, all other required courses in the degree program. 3 to 6 semester hours credit.

ED 551 Discovering Science G *(See Page 134)*

ED 554 Seminar in Elementary Education G

This course is intended to effect an integration among the following factors: 1. the graduate student's formal studies in the Master of Education program; 2. his knowledge of current research relating to curriculum, methods, materials, and evaluation in elementary education, and 3. his personal experience in teaching and education. Each student will make an extensive study of a significant problem in elementary teaching. Prerequisite: Completion of 24 hours toward the master's degree including 12 hours in Elementary Education. 3 semester hours credit.

Foundations in Education

ED 420 Educational Measurement UG

Included in this course is an examination of the development of the testing, measurement, and evaluation movement. A review and evaluation of tests and other evaluative methods needed for the measurement of mental maturity and educational growth in the student's field of specialization, and a study of elementary statistical procedures necessary for their interpretation, complete the course offerings. 3 semester hours credit.

ED 480 Philosophy of Education UG

Through research and discussion, students are expected to analyze and relate the metaphysical, epistemological, ethical, and social theories of philosophy to educational theories and practices. Prerequisite: PL 380 (Introduction to General Philosophy U). 3 semester hours credit.

ED 520 Psychological Foundations of Education G

This course involves an advanced systematic exploration of the various psychological principles related to teaching with special emphasis upon application of these principles in specific classroom situations. Special treatment will be given to social psychology, dynamics in interpersonal relationships and group processes, motivation, and discipline theory. Prerequisite: PY 200 (General Psy-

chology U), and one of the following: PY 224 (Child Growth and Development UG), PY 226 (Adolescent Psychology UG), or PY 222 (Psychology of Learning UG). 3 semester hours credit.

ED 522 Measurement of Intelligence – Binet G

This course is designed to acquaint students with the administration, scoring and interpretation of the Binet Intelligence Test. The purpose of this course is two-fold: (1) To expose students to the theories and functioning of Intelligence as set forth by Simon Binet, Lewis Terman and Maud A. Merrill; (2) To train students to become qualified Stanford-Binet Examiners. Prerequisite: PY 200 (General Psychology U), and one of the following: PY 224 (Child Growth and Development UG), PY 226 (Adolescent Psychology UG), or PY 222 (Psychology of Learning UG), and ED 420 (Educational Measurement UG). 3 semester hours credit.

ED 524 Measurement of Intelligence – WAIS & WISC G

This course is designed to acquaint students with the administration, scoring and interpretation of the Wechsler Intelligence Scales. The purpose of this course is two-fold: (1) To expose students to the theories and functioning of Intelligence as set forth by David Wechsler; (2) To train students to become qualified WAIS and WISC examiners. Prerequisite: PY 200 (General Psychology U), ED 520 (Psychological Foundations of Education G), ED 420 (Educational Measurement UG), ED 522 (Measurement of Intelligence - Binet G). 3 semester hours credit.

ED 580 Philosophical Foundations of Education G

Drawing upon the student's background in philosophy and philosophy of education, the course is designed to develop a close acquaintance with the major schools of western philosophy, and to determine their relationship to current educational philosophies and practices. Prerequisite: PL 380 (Introduction to General Philosophy U), ED 480 (Philosophy of Education UG). 3 semester hours credit.

General

ED 400 History of American Education UG

This course is designed to provide the historical foundation by which the student may better understand the educational issues of the present and intelligently help plan future directions and goals. A study will be made of the origin and development of our American system of education at all levels. Changes in objectives, organization, control, support, curriculum and methods will be noted. The effect of various movements on the education program will be identified as to cause, characteristics, and influence. Current trends and tendencies for the future will be discussed. 3 semester hours credit.

ED 401 Comparative Education UG

A study will be made of the educational systems in other countries with emphasis on Europe. After an identification of the culture of a country, special topics will include: development, control, support, objectives, organizational pattern, curriculum, teachers, methods, special services and trends. International educational and cultural programs will also be discussed. 3 semester hours credit.

ED 402 Team Teaching UG

Emphasis will be placed on the nature, objectives, and development of the team teaching idea; its organization, team makeup, planning and instruction; student grouping and scheduling; facilities, materials and equipment; instruction and adaptation to existing conditions; the ungraded school; and team teaching and the community. 3 semester hours credit.

ED 403 Professional Ethics UG

The heart of this course will be the ethical principles upon which the Education Profession is based, those standards which should guide professional service in a moral not legal sense. Emphasis will include: criteria of a profession as applied to teaching; responsibility and privileges of the profession; codes of ethics - nature, formation, interpretation, application, and enforcement; professional organizations - purpose, organization and achievements; relation of the professional role to private life; and interpretation of specific current situations including those suggested by class members. 3 semester hours credit.

ED 404 Fundamentals of Data Processing UG

Introduction to the theory and methodology of electronic data processing. Development of the history and classification of computers. Examination of machine and symbolic languages, storage methods, peripheral equipment and numbering systems. Emphasis on the role of the computer in the educational systems of today. 3 semester hours credit.

ED 405 Teaching Basic Driver Education UG

This course is designed to provide the student with the basic knowledge and skills in teaching Driver Education. Emphasis will be placed on human characteristics of the driver, classroom techniques and driving skills. Acceptable for certification. 3 semester hours credit.

ED 492 Supervised Teaching in the Public Schools U

This course provides opportunity under regular classroom conditions for continuous supervised experiences in all classroom ac-

tivities of the public schools. Experience is gained in the study of individual differences, teaching techniques, and classroom management. Supervision is given by the classroom teacher and by members of the college faculty. Students are expected to carry a minimum responsible teaching load equal to 50% of the regular classroom teacher's assignment. Prerequisite: This course (experience) is open only to students matriculated for a degree at the State College at Bridgewater (B.S., A.B. or M.Ed.). M.Ed. Candidates must have completed: 1. all other prerequisite courses; 2.24 semester hours of appropriate graduate requirements for the degree; and 3. 18 semester hours in the subject matter area in which the Student Teaching is to be done. These hours are to be approved by the Director of Teacher Preparation. 6 semester hours credit.

ED 500 Research and Evaluation G

This course will stress the use of appropriate research methods in the selection and evaluation of data. It is designed to aid the graduate student in the preparation and understanding of research reports. Major areas of emphasis will include the nature of and criteria for evaluating research, library techniques and resources, selection and delimitation of problems, appraisal of research literature, documentation, organization and format of a report, necessary statistical concepts and methods of research. The student will be expected to demonstrate his knowledge of these in a term research study. Prerequisite: ED 420 (Educational Measurement UG). 3 semester hours credit.

ED 501 Master's Thesis G

3 semester hours credit.

Guidance

ED 430 Principles and Practices in Guidance UG

This is an introductory course designed to provide the student with an understanding of the need, meaning, and scope of guidance services. The principles and practices involved in the following guidance areas will be considered: introduction and philosophy of guidance; understanding the individual and his needs; essential orientation activities for the student; collection, recording, and evaluating data; interviewing and counseling; guidance through group activities; placement and follow-up activities; organization and evaluation of guidance. The emphasis of the course will be upon the role of the classroom teacher in the guidance program. 3 semester hours credit.

ED 530 Counseling Theory and Practice G

Emphasis will be placed on the principles of counseling and the application of the basic techniques to the counseling process. The roles of both guidance personnel and teachers will be stressed.

Case studies will be used and situational problems discussed. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

ED 531 Organization and Administration of Guidance Programs G

This course will deal with the procedures for creating and operating a program of guidance services as part of the public school education. It will identify the basic principles and practices common to all guidance programs and show how guidance services and activities are, and can be, adapted, organized, and administered to serve school pupils, their parents, teachers, and administrators. The course will give special attention to immediate NDEA Act applications. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

ED 532 Practicum in Counseling G

Emphasis will be on the practice of counseling. Multiple counseling sessions using tapes will be emphasized. Supervised observation will be included to help measure individual assessment of growth and competence. Prerequisite: ED 530 (Counseling Theory and Practice G). 3 semester hours credit.

ED533 Psychological Tests in Guidance G

The aim of the course is to introduce the school counselor to the basic principles of psychological testing and to study, in depth, the most commonly used instruments for assessing intelligence achievement, aptitude, interest and personality. Prerequisite: ED 430 (Principles and Practices in Guidance UG), ED 420 (Educational Measurement UG). 3 semester hours credit.

ED534 Occupational and Educational Information G

This course is offered for teachers and counselors as a study in the methods of presenting occupational and educational information in formal guidance programs and in units on vocations in subject matter classes. Consideration will be given to an evaluation of materials and techniques in terms of practical use. Materials of educational information will be considered and collected. The student will begin an individual library of educational information and will construct a 10 lesson unit of educational information to be placed in a subject matter class. Other assignments will explore individual situations and include recommendations in the light of acceptable methods. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

ED 535 Principles and Practices in Placement G

This course will consider the methods and materials used in placement in educational programs beyond secondary school, in public

schools grades 1-12, in private schools, and in pre-primary schools. Students will evaluate the various approaches to in-school needs of children and specifically the role of guidance personnel as members of the educational team in the satisfaction of these needs. Objective testing programs as they pertain to academic placement will be considered. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

Reading

ED 330 Teaching of Reading in the Elementary School UG

This course will consider how reading instruction is initiated, how basic reading abilities are developed, and how growth in voluntary reading is encouraged. The essentials of an effective developmental reading program will be examined with attention to organizing reading groups and evaluating progress. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 331 Developmental Reading in the Secondary School UG

This course will provide a study of the techniques used to develop reading skills in the secondary school, and evaluation of the modern reading materials available, a study of techniques used to analyze students' reading needs and a survey of administration of reading programs in the secondary school with implications for teachers as well as administrators. The course is designed for all who wish fresh viewpoints in initiating, organizing and updating a reading program. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 332 Diagnosis and Correction of Reading Difficulties UG

In this course, students will learn to (1) analyze the reading difficulties of elementary and secondary pupils, (2) provide appropriate remedial instruction and (3) evaluate pupil progress under such instruction. Consideration will also be given to the causes of reading difficulties and the problems encountered in organizing remedial programs. Prerequisite: ED 330 (Teaching Reading in the Elementary School UG), or ED 331 (Developmental Reading in the Secondary School UG), and permission of the Instructor. Well qualified applicants may be admitted without ED 330 or ED 331. 6 semester hours credit.

ED 543 Improving Reading Instruction G

This course will undertake an examination of current and evolving practices and programs in the teaching of reading. Teachers, reading specialists, and administrators will be helped to develop practical plans for insuring that their own reading programs successfully meet the needs of all their students. Prerequisite: ED 330 (Teaching of Reading in the Elementary School UG). 3 semester hours credit.

ED 544 Seminar in Reading and Language G

The primary concern of this course will be the application of research methods and findings to the improvement of all aspects of reading and language instruction. Each student will make an extensive study of a significant problem related to the teaching of oral expression, written expression, reading, spelling or handwriting. Prerequisite: ED 330 (Teaching Reading in the Elementary School UG). 3 semester hours credit.

ED 545 Teacher Orientation in Learning Disabilities G

The purpose of this course is to acquaint in-service teachers with current statistics and research concerning children with learning disabilities. The course rationale is to present these children in perspective and in relation to a scale or continuum which will encourage appreciation of the spectrum of difficulties children may have. Various approaches to diagnosis and evaluation will be studied with an attempt to cut across the many fields of present thought including perceptual handicaps, physiological, neurological and psychological approaches. Prerequisite: PY 200 (General Psychology U), and ED 330 (Teaching Reading in the Elementary School UG). 3 semester hours credit.

School Administration

ED 560 Principles and Practices in School Administration G

A basic introduction to the principles of school administration. Administration will first be examined as a profession. The administrative process will be developed and used in class work and course projects. Administrative problems will be identified in the areas of program, pupil administration and services, facilities and equipment, personnel and public relations. Guiding principles will be established for the solutions of these problems with emphasis also on common practices, trends, proposals and issues. The course provides the foundation and is a prerequisite for further courses in administration. 3 semester hours credit.

ED 561 Elementary School Administration G

The emphasis in this course will be upon the application of the general principles of school administration to the solution of the specific problems of the elementary school. Emphasis will be placed on the areas of elementary program, plant, services, pupil control and accounting, personnel and public relations. Prerequisite: ED 560 (Principles and Practices in School Administration G). 3 semester hours credit.

ED 562 Secondary School Administration G

The emphasis in this course will be upon the application of the general principles of school administration to the solution of the specific problems of the secondary school. Emphasis will be placed on the areas of secondary program, pupil administration, plant and facilities, personnel and public relations. Prerequisite: ED 560 (Principles and Practices in School Administration G). 3 semester hours credit.

ED 563 Personnel Administration in Public Schools G

A treatment of the nature, development, and importance of personnel administration and the general principles, preparation and procedures for its implementation. Special topics will include selection, orientation, assignment, supervision, rating and the establishment of the type of morale essential for the most effective teaching-learning atmosphere. Prerequisite: ED 560 (Principles and Practices in School Administration G), ED 561 (Elementary School Administration G), or ED 562 (Secondary School Administration G). 3 semester hours credit.

ED 564 Public School Supervision G

A fundamental course in school district supervision. The philosophy and function of supervision will be explored together with the roles of the various staff members responsible for supervision in a modern public school district. Consideration will be given to supervision at the various grade levels. Prerequisite: ED 560 (Principles and Practices in School Administration G), ED 561 (Elementary School Administration G), or ED 562 (Secondary School Administration G). 3 semester hours credit.

ED 565 School Finance and Business Administration G

This course will be based upon a study of the financial support for public schools from local, state, and federal governments. School budgets, accounting, and purchasing procedures, distribution of supplies and services, transportation, food service, management and maintenance of the school plant will be given consideration. Prerequisite: ED 560 (Principles and Practices in School Administration G), ED 561 (Elementary School Administration G), or ED 562 (Secondary School Administration G). 3 semester hours credit.

ED 566 School Plant Administration G

This course is intended for the specialist in school administration, the person who may ultimately go on to school district administration as an assistant superintendent, business manager, director of buildings and grounds or superintendent. The students will consider in depth the many factors involved in planning, construction, maintaining and administering the modern school plant. Prerequisite:

ED 560 (Principles and Practices in School Administration G), ED 561 (Elementary School Administration G), or ED 562 (Secondary School Administration G). 3 semester hours credit.

ED 567 Administration of the School Activity Program G

The purpose of this course is to cause the prospective School Administrator to recognize the purposes of the activity program within the Secondary School, that the activity program plays an important part in the overall development of the secondary school student, and that the program should be carefully planned and executed in order to reap the maximum benefits. The course stresses the nature and function of student activities, the management of the activity program (with an administrative emphasis) and an analysis of the types of student activities. 3 semester hours credit.

ED 568 Seminar in Problems of School Administration G

This seminar is intended as a final professional course for administration majors. It will include study and analysis of current problems and issues in elementary and secondary school administration. Students will seek solutions to these problems through reading and research. Results will be presented to the class as a whole. Prerequisite: Twenty-four (24) credit hours must be completed toward the Master's Degree in School Administration including five (5) other Administration courses. Consent of major adviser is also necessary. 3 semester hours credit.

ED 569 Legal Aspects of School Administration G

A general overview of the legal rights, duties and liabilities of school personnel in general relationship to the school committee in Massachusetts. The course is intended for administrators, prospective administrators, and classroom teachers interested in the legal aspects of school committees, school property, teaching contracts, tenure, prevention of injury and accidents to students, relationships with parents, and a general survey of educational law cases at the local, state, and national level. 3 semester hours credit.

ED 570 Federal Assistance to American Education G

This course is designed to familiarize teachers, school administrators, and other educators with the government's expanding role in education. While an historical study of federal aid dating back to Colonial times will be discussed, course emphasis will be placed on contemporary developments. The goals, content, federal priorities, and evaluation of federal-aid-to-education programs will be studied with particular emphasis on implications to schoolmen. Special attention will be devoted to the various titles of the Elementary and Secondary Education Act of 1965 and its subsequent revisions and amendments. 3 semester hours credit.

ED 312 Teaching Social Studies in the Secondary School UG

ED 314 Teaching English in the Secondary School UG

ED 319 Teaching Science in the Secondary School UG

ED 322 Teaching Mathematics in the Secondary School UG

ED 324 Teaching Modern Foreign Language in Secondary School UG

The above courses are comparable in purpose and design, differing as application is made to a particular subject field. The main emphasis will be on the establishing of objectives, the choosing of appropriate content, procedures, and materials, and the techniques of planning necessary to accomplish the objectives. Other topics will include classroom organization and management, meeting of individual differences, evaluation and reporting of progress, and recent developments in methodology and subject matter. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit for each course.

ED 316 Methods and Materials of the ESCP UG (NSF)

An introduction to the teaching of Earth Science at the secondary school level, using the methods and materials developed by the Earth Science Curriculum Project. This course is open only to participants in the National Science Foundation College-School Cooperative Institute. 3 semester hours credit per semester for two semesters.

ED 317 Methods and Materials of the HSGP UG (EDPA)

An introduction to the teaching of Geography at the secondary school level, using the methods and materials developed by the High School Geography Project. This course is open only to participants in the EDPA College-School Cooperative Institute. 3 semester hours credit per semester for two semesters.

ED 440 Methods and Materials in Secondary Education UG

Emphasis will be placed on the analysis of the theory and practice of teaching in the modern secondary school. Topics will include: the learning process--principles and application; establishing of objectives; classroom organization and management; meeting individual differences; evaluation and reporting progress; correlation between subject matter fields; and recent developments in methodology and subject matter. This course is designed primarily for those interested in gaining certification, undergraduates with no teaching experience, and prospective teachers who have been away from the

classroom for many years. Students currently employed as teachers are strongly advised to select a methods course in their particular discipline. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 443 Secondary School Curriculum UG

Emphasis is placed on the purposes of modern secondary school education and the essential features of the curriculum needed to implement them. Topics will include: organization, historical development, factors affecting trends and issues, core curriculum, planning curriculum guides, and participation in curriculum evaluation and revision. 3 semester hours credit.

Special Education

ED 410 Introduction to Special Education UG

This is a survey of all phases of special education emphasizing the program for mentally and physically handicapped children, for emotionally disturbed children and for the academically talented. The slow learner and the perceptually handicapped will receive consideration. 3 semester hours credit.

ED 411 Methods and Materials in Special Education UG

In this course special emphasis will be placed on the philosophy, the general and specific aims, the identification and classification, and the curriculum development of the educational program for retarded children. The planning, developing, and guiding of pupil experiences will help to attain the desired pupil outcomes through the functional application of subject matter. Prerequisite: ED 410 (Introduction to Special Education UG). 3 semester hours credit.

ED 412 Organization and Administration of Special Education UG

The purpose of this course is to meet organizational and administrative problems in the implementation of a comprehensive special education program especially for the mentally retarded. A complete study of the psychological services, the classroom, the teaching personnel, the required individual pupil case summary data, the curriculum, and classroom management will be included. Other aspects of special education will receive consideration. Prerequisite: ED 410 (Introduction to Special Education UG). 3 semester hours credit.

ED 413 Industrial Arts in Special Education UG

This course gives the teacher the opportunity to work with the various materials necessary for an adequate handwork program. The planning procedure, the necessary equipment, and the successful

operation of such a program will be studied to insure the necessary goals being achieved. The requirements for certification of the special class teacher for teaching the mentally retarded are included. 3 semester hours credit.

ED 414 Domestic Arts in Special Education UG

In this course emphasis will be placed upon teaching the basic principles of nutrition for planning, preparing, and serving meals for the individual and family; principles of management in the home; management of money; time, and labor-saving equipment, simple home nursing and child care; and aesthetic experience in personal appearance and clothing. 3 semester hours credit.

ED 415 Methods and Materials for the Gifted Learner UG

The purpose of this course is to understand the needs of the academically talented, with basic philosophy which will help them to realize their potential. Emphasis will be placed on identification, classification, evaluation, curriculum, methods and materials for the special classroom. The problems of motivation, of underachievement, and of creativity will be stressed. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 416 Teaching the Slow Learner UG

This course is designed to give practical suggestions to the teacher for meeting the needs of the slow learner. Emphasis is placed upon identification and classification, methods and materials, procedures, social and vocational adjustment, and the structuring of the modern curriculum to provide adequate education for the slow learner. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 417 Methods in Teaching Emotionally Disturbed Children UG

Emphasis will be on methods and materials necessary for a successful educational program for emotionally disturbed children including classroom facilities, curricula learning experiences and management. Prerequisite: ED 410 (Introduction to Special Education UG), and PY 200 (General Psychology U). 3 semester hours credit.

ED 418 Etiology, Dynamics, and Treatment of Emotional Disturbance in Children UG

Emphasis will be on the complete background of the causes, characteristics, and behavioral aspects of emotionally disturbed children, including the new syndromes resulting from recent research. Study will be made of mental health clinics as the primary community resource involved. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

ED 419 Workstudy Program in Special Education UG

In this course emphasis will be placed on the philosophy and methods of establishing and maintaining work-study programs for mentally retarded students. The curriculum will include the practical application of planning and developing, coordination of academic subjects, Federal and State Labor Guidelines, Federal and State Assistance, and on-going evaluation of procedures to bring about desired outcomes. Prerequisite: ED 410 (Introduction to Special Education UG). 3 semester hours credit.

ED 551 Discovering Science–A Survey of Current Elementary School Science Programs G

The inductive programs for elementary science: Elementary Science Study, Minnesota Mathematics and Science Teaching Project, Science-A Process Approach, and the Science Curriculum Improvement Study. Their philosophy, psychology, materials, and methods of implementation. Prerequisite: ED 460 (Methods and Materials in Elementary Science UG) or ED 462 (Science & Social Studies Methods and Materials in Elementary Education), or permission of Instructor. 3 semester hours credit.

DEPARTMENT OF INSTRUCTIONAL MEDIA

Professor Henry Rosen, Chairman

Assistant Professor: Thomas Lee Instructor: Robert F. Ward

AV 420 Advanced Audiovisual Education UG

This is a directed study course. The student will concentrate on the coordination of audiovisual materials in his field of choice and will build a course of study in the chosen concentration. Prerequisite: AV 310 (Audiovisual Methods and Materials) or AV 450 (Techniques and Media of Audiovisual Instruction UG). Credits and hours to be arranged.

AV 450 Techniques and Media of Audiovisual Instruction UG

This course is designed to improve instruction through the appropriate use of new techniques and media of communication and instruction in the classroom and/or in industry. The student learns the operation, care and repair of equipment, and sources of materials according to his personal needs. In addition, he experiments with lesson planning and application of techniques and media, and makes certain materials for efficient and applicable presentation in a teaching-learning situation. 3 semester hours credit.

AV 452 Science of Photography in Education UG

This course is designed to give instruction in the basic philosophy, scope, educational planning, and techniques of preparation of photographic instructional materials. Students will be taught preparation of color and black and white slides, stills, filmstrips, and transparencies for overhead projection, and photography and darkroom techniques. Prerequisite: AV 450 (Techniques and Media of Audiovisual Instruction UG). 3 semester hours credit.

AV 453 School Public Relations UG

This course is designed to acquaint the teacher and the administrator with the responsibility of the school to the public. It is the purpose of this course to teach the necessity for a well-informed public to foster good school public relations. All necessary media will be discussed; radio, television, newspapers, magazines, school publications, teacher-parent and administrator-teacher-parent relationships. 3 semester hours credit.

AV 454 Script Writing Techniques for Radio and Television UG

This course is designed to give the student skills in writing for Radio and TV. Developing a sense of the dramatic and the understanding of the science of human psychology will also be studied. Prerequisite: AV 450 (Techniques and Media of Audiovisual Instruction UG), AV 452 (Science of Photography in Education UG), AV 453 (School Public Relations UG), and AV 456 (Radio and TV Studio Operation and Control UG). 3 semester hours credit.

AV 456 Radio and TV Studio Operation and Control UG

The student will learn all of the technical data necessary to direct TV programs and to operate a radio station. The student will be prepared to take the examination for 1st, 2nd, or 3rd class license as he is prepared. Prerequisite: AV 450 (Techniques and Media of Audiovisual Instruction UG), AV 452 (Science of Photography in Education UG), AV 453 (School Public Relations UG), and AV 460 (Graphics for Instructional Media UG). 3 semester hours credit.

AV 457 Advanced Photography Techniques UG

This course is designed to give preparation in advanced theory of photography and the preparation of projected photographic materials; slides, stills, filmstrips, motion pictures, and overhead transparencies. Advanced techniques of darkroom usage and salon printing will be an integral part of the course. Prerequisite: AV 452 (Science of Photography in Education UG). 3 semester hours credit.

AV 458 Radio and TV Production UG

This course is designed to make the student proficient in the production of radio and TV programming, with stress upon being able to make, obtain, and set up necessary props, backgrounds, trick camera shots and sound effects. Prerequisite: AV 450 (Techniques and Media of Audiovisual Instruction UG), AV 452 (Science of Photography in Education UG), AV 453 (School Public Relations UG), AV 456 (Radio and TV Studio Operation and Control UG), and AV 460 (Graphics for Instructional Media UG). 3 semester hours credit.

AV 460 Graphics for Instructional Media UG

This course is designed to give instruction in the graphic arts pertaining to new technology in education. The student will learn the techniques of mechanical and hand lettering and layout. Students will prepare materials by color-lift, Thermofax, Technifax, A-O, and will learn the basic techniques for copying 2'' x 2'' slides. Prerequisite: AV 450 (Techniques and Media of Audiovisual Instruction UG), and AV 452 (Science of Photography in Education UG). 3 semester hours credit.

AV 464 Management of an Instructional Media Department UG

The course is designed to cover all phases of operating an Instructional Media Department: budgeting, purchasing, staffing, services, analysis of materials and equipment. Prerequisite: AV 450 (Techniques and Media of Audiovisual Instruction UG), AV 452 (Science of Photography in Education UG), AV 453 (School Public Relations UG), AV 456 (Radio and TV Studio Operation and Control UG), and AV 460 (Graphics for Instructional Media UG). 3 semester hours credit.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION FOR MEN

Associate Professor Harry August Lehmann, Chairman

Associate Professor: Edward Carl Swenson

Assistant Professor: Thomas Allen Knudson

Instructors: Edward August Braun, David Paul Deep, Peter Mazzaferro, Joseph A. Yeskewicz

HM 424 Problems in Physical Education and Athletics UG

Course content includes the recognition, discussion and systematic analysis of controversial issues and problems. Among topics to be studied are the optimum use of facilities, ethical practices, financing the program, relationships with non-school programs, interscholastic athletic competition below high school level, youth fitness, crowd control, injury prevention, program evaluation, and community organization for health, physical education and recreation. Particular attention is given to problems suggested by class members. 3 semester hours credit.

HM 425 Care and Prevention of Athletic Injuries UG

A basic course to illustrate the methods of prevention, correction, care and treatment of athletic injuries. Training and conditioning programs will be studied. Class time will be devoted to lectures, discussions, and practical work. Taping and use of physical therapy equipment will be covered in the course content. 3 semester hours credit.

HM 426 Management of Athletics UG

This course involves the study of athletic policies and regulations on the local and state levels, administrative plans, contest management, the purchase and care of equipment, athletic awards, finance and budget, athletic facilities, scheduling, public relations, the intramural program, and trends in interscholastic athletics. Lectures, reading, class discussions, and written assignments will be directed toward the enrichment of the athletic programs in the school systems represented. 3 semester hours credit.

HM 427 Public Relations in Physical Education UG

This course is designed to develop competencies in the area of public relations specifically for those engaged as teachers of physical education, coaches and athletic administrators and for those preparing for such positions. The course content will include the study of a public relations philosophy, the unique public relations aspects of the physical education program, specific and practical techniques, relationships with media personnel, relationships with the various internal and external publics, and the planning and preparation of annual reports, speeches, brochures, displays, demonstrations and press releases. Course projects are planned to help upgrade the public relations programs in the departments and schools represented. 3 semester hours credit.

HM 434 Foundations of Physical Education UG

This course is concerned with the nature and scope of physical education. The course content includes the scientific foundations of physical education; the objectives and how they are best achieved; the philosophy of physical education as a part of total education; the relationship of physical education to health, recreation, camping and outdoor education; the history of physical education; the qualifications and responsibilities of physical education personnel; and challenges and problems facing the physical education profession. The lastest available materials and information from the President's Council on Physical Fitness will be included. 3 semester hours credit.

HM 435 Organization and Administration of Intramural Sports UG

Current practices, ideas, and methods of organizing and administering a program of intramural sports at all age levels. 3 semester hours credit.

HM 436 Techniques in Coaching Football and Basketball UG

Discussion of offensive and defensive trends; methods of teaching of individual skills; organization and promotion of football and basketball. 3 semester hours credit.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION FOR WOMEN

Professor Mary Josephine Moriarty, Chairman

Associate Professor: Mary Lou Thornburg

Assistant Professors: Patricia Ann Phillips, Sharon Tufts

Instructors: Ann Oldham Coakley, Katherine Ekas, Regina Mary Gross, Virginia Lee Hogg, Shirley Jane Krasinski, Marjorie Atwood Rugen, Hazel Margaret Schopp, Johanne Smith, Carol Ann Wolfgram, Lynne Yeamans

PE 349 Methods of Teaching and Calling the Modern Square Dance UG

The modern square dance will be analyzed as to its make-up and place in the physical education curriculum. Basics included in the modern square dance will be presented in progression. The techniques of teaching will be emphasized as students are taught to perform these fundamentals. As dances are not memorized in the modern square dance, the method of learning to call individual basics will be stressed and emphasis placed on the mechanics and function of each. Time will be spent on phrasing, timing, and voice. An analysis of square dance music as it relates to figure composition, as well as a simple method of composing dances, will be made. 3 semester hours credit.

PE 360 Organization of Girls' Intramural and Extramural Activities UG

Concerned with the construction of a balanced program of co-curricular activities based upon sound educational objectives implemented with the current standards and guidelines established for the junior and senior high school girl. The roles of the coach and officials are coordinated to bring about the best of educational experience for the participant. 3 semester hours credit.

PE 370 Theory and Practice of Physical Education in the Elementary School UG

Concerned with Physical Education Activities and skills throughout the Elementary Grades. Emphasis will be on preparation and teaching techniques for the classroom teacher, specialist and supervisor. A laboratory experience will be a required part of the course. 3 semester hours credit.

PE 380 Introduction to Recreation UG

Covers the history of recreation from colonial days to the present. Particular emphasis is placed on the cultural views and their relationship to recreation. The various types of recreation presently seen and the impact of leisure time on the future will also be discussed. 3 semester hours credit.

PE 382 Programs in Recreation UG

This course deals with the fundamental aspects of program planning in Recreation. The programs of various agencies, both public and private, will be discussed. Items given special attention are: Senior Citizens Programs, Physically and Mentally Retarded Programs and Pre-primary Programs. 3 semester hours credit.

HE 385 Nutrition and Fitness UG

The course will include information concerning fundamentals of nutrition, and the relation of nutrition to cultural patterns, dental health, and total health and fitness. Current nutrition problems will be discussed. Recent research in this area will be investigated. The New England Dairy and Food Council will assist in planning the course outline, will provide approved films, and suggest speakers. 3 semester hours credit.

PE 390 Philosophy and Principles of Physical Education UG

Discussion of facts and principles that serve to formulate a philosophy of physical education. Study of the relationship of physical education to general education. 3 semester hours credit.

PE 395 Measurement and Evaluation in Physical Education UG

The construction and use of written tests, skill tests, and other measurement devices in physical education; methods of administration and use of data. 3 semester hours credit.

HE 455 First Aid UG

The content of this course will include lecture, discussion, and practice of first aid skills, leading to the completion of the Red Cross Standard, Advanced and Instructor First Aid Certificates. The objectives will be to encourage good safety practices and attitudes; to prepare the individual to give first aid care to himself, his family and others. 3 semester hours credit.

HE 465 School Health Program UG

This course is designed to acquaint the elementary classroom teacher with the areas of the school health program: health services, health education and healthful school living. Emphasis will be placed on the objectives and goals of health education within and throughout the total school curriculum, organization of the school health services and basic issues and problems in school health. 3 semester hours credit.

HE 475 Community Health Education UG

This course is concerned with the history and development of public

health programs; the relationships of health departments -- local, state, and federal, -- public and private agencies, and the school health program. Problems and principles of the community health programs based on local needs will be considered. The course is designed for classroom teachers, health specialists, and others interested in community health. Prerequisite: a course in personal health education. 3 semester hours credit.

HE 485 Methods in Health Education UG

HE 495 Health Problems UG

Current health problems related to the school and community will be presented. Topics will be based on needs and interests of class participants. The school's responsibility for education in these areas will be discussed. 3 semester hours credit.

HE 499 Sex and Family Living Education UG

HE 590 Seminar in Health Education G

DEPARTMENT OF LIBRARY SCIENCE

Associate Professor Beatrice Irene Bouchard, Chairman

Librarian: Owen Thomas McGowan

Cataloguer: Susie Mabell Bates

Instructors: Olive Lee, Adeline Dupuy Oakley

Visiting Lecturers: Martha Catherine Engler, Diane Gertrude Farrell, Thomas Carol Higgins, Joan Sawyer Leland, Marion Jane Manthorne, Peter Simoglou

LI 310 Books for Children (Children's Literature) UG

This course covers the reading interests of children from pre-school years through the elementary grades with emphasis on: the contribution that reading can make toward the process of growing up; criteria for evaluation and analysis of children's books; types of books available today. Topics covered are: history of literature for children; illustrators; folk-tales; myths; modern fanciful tales; fiction; poetry; books in special fields, such as, history, science, travel. 3 semester hours credit.

LI 320 Books for Young Adults (Literature for Young Adults) UG

This course is a survey of literature for the adolescent designed for junior and senior high school teachers and librarians. It includes a brief history of the development of this literature, the evaluation of publishers, and the psychology of the adolescent reader. 3 semester hours credit.

LI 370 Reference Materials and their Use UG

This course outlines appropriate procedures in various disciplines. A bibliographic search diary gives practical application of techniques using all the resources of the library. 3 semester hours credit.

LI 430 School Library Administration UG

This course will consider the principles and practices in school library administration and service; the role of the library in the school's educational program; pupil instruction in library use; the planning and equipping of the library; and other aspects of library organization. 3 semester hours credit.

LI 440 Cataloguing and Classification UG

This course is an introduction to cataloguing and classification. Emphasis is on the Dewey Decimal classification and Sears subject headings. Some time is given to the general processing of books. 3 semester hours credit.

LI 446 Technical Services UG

This course is designed to give an overview of the acquisition, cataloguing, circulation, and maintenance of the instructional materials in the library. 3 semester hours credit.

LI 450 An Introduction to the Library (The School Library, a Survey) UG

This course introduces teachers, administrators, and beginning librarians to the role of the library in education and the expanded services needed to meet the new methods of teaching. 3 semester hours credit.

LI 451 Storytelling UG

This course covers the theory and practice of the art of storytelling. Emphasis is on examination of the literary sources, experience in selection and presentation of stories, and techniques in cultivating appreciation of literature in children from kindergarten through grade 8. 3 semester hours credit.

LI 452 Selection of Library Materials (Media Selection) UG

This course includes criteria and policies in selection for reader interest and curriculum enrichment, with emphasis on practical applications and appraisal of bibliographic aids and current review practices. 3 semester hours credit.

LI 464 Use and Organization of Non-print Materials UG

This course is designed to survey the standards and innovations in school media programs and to give exposure and proficiency in the use and organization of non-print materials currently used in libraries. 3 semester hours credit.

LI 548 Advanced Cataloguing and Classification G

This course gives primary consideration to the Library of Congress classification and subject headings. Some attention will be given to non-book materials. Prerequisite: LI 440 (Cataloguing and Classification UG). 3 semester hours credit.

LI 553 The History of Libraries G

This course covers the form and function of the library as an institution in social and intellectual settings. Included are classical, medieval, and scholarly libraries; the development of modern public and academic libraries; and the school library movement, particularly in Massachusetts. 3 semester hours credit.

LI 566 Systems Approach to Libraries (Automation in the Library) G

This course offers a survey of developments in information retrieval and other library applications of modern procedures in acquisition, circulation, management, and periodical control. 3 semester hours credit.

LI 569 The Book Arts (History of the Printed Book--Seminar on the Book) G

This course traces the development of the written word from the earliest alphabet to today's computerized publishing. The history, art, and science of the book include field study of book production; manuscripts; rare books and bindings; and award winning books. 3 semester hours credit.

LI 576 Research Problems in Library Literature (Research and Evaluation in Library Science) G

This course is designed for special projects for advanced students desiring individual instruction in the methods of library research. Prerequisite: permission of the Department. Credit and hours to be arranged.

LI 590 Seminar on School Librarianship G

This seminar is intended as a culminating exercise in administrative school librarianship. It will include study and analysis of current problems and issues in elementary and secondary school library administration. Students will seek solutions to these through reading and research. Results will be presented to class. Pre-

requisite: a minimum of fifteen elective credit hours toward the Master of Education in School Librarianship, and consent of the adviser. 3 semester hours credit.

LI 595 Practicum G

This field assignment may be taken for 3 or 6 semester hours credit. It is the equivalent of 8 or 16 weeks of practice teaching and library duties of a professional nature, depending on the student's background and upon the recommendation and approval of the adviser. 3 semester hours credit.

DIVISION OF THE SOCIAL SCIENCES

Dr. Jordan Dominic Fiore, Director

The Division of the Social Sciences is comprised of the Departments and Areas of Economics, History, Political Science, and Public Administration.

DEPARTMENT OF ECONOMICS

Professor Jordan Dominic Fiore, Acting Chairman

Instructor: Richard Freeman

EC 412 Comparative Economic Systems UG

This course will include an analysis of the central economic problems which nations face in organizing economic activity, and a comparison of theories and institutions of capitalism and liberal socialism. Attention is given to the elements of strength and weakness found in the economic systems of various countries. 3 semester hours credit.

EC 413 Current Economic Problems UG

Selected topics of current importance to the economy will be discussed. Reading will cover the contemporary economists and their recent economic proposals. 3 semester hours credit.

EC 422 The Economy of Soviet Russia UG

Economic development of the Soviet Economy since 1917 is reviewed. Emphasis is placed on comparing the structure of their economy to that of the United States in regard to industry, agriculture, finance, and economic growth. Attention is given to their techniques of central planning. 3 semester hours credit.

EC 432 Principles of Investment UG

An introduction to the mechanics of the stock market is presented. Various investment media are analyzed in regard to their desirability for individual investment portfolios. Some attention is also paid to the investment policies of selected financial institutions. 3 semester hours credit.

DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

Professor Jordan Dominic Fiore, Chairman

Commonwealth Professor: Annabelle McConnell Melville

Professors: Ralph Samuel Bates, Jane Herrick, Stephanie Olga Husek

Associate Professors: William Roswell Cole, Jr., Mary Noel, Maurice Rotstein, Donald Lundeen Keay, Benjamin Arthur Spence

Assistant Professors: Gerald Joseph Doiron, Arthur Carlisle Oien, Guy Chandler Clifford, Dennis Leo Lythgoe, John Fordyce Myers

Instructors: Philip Thomas Silvia, Alfred Young Wolff, Lucile O'Connell, Richard Yin, Duane Lee Christensen, Jean Frances Stonehouse

HI 271 Introduction to Political Science UG

This course provides a consideration of the definitions, theoretical foundations, and historical evolution of the principles of politics. The fundamental concepts in political science are examined: state, politics, law, and a general analysis of the place of government in modern society. (N.B. Graduate credit will be given only if the student has had no undergraduate course in political science.) 3 semester hours credit.

HI 272 American Government: The Federal System UG

The Constitution of the United States is studied in detail as the basis of the Federal System. Topics of study include the development of the democratic process in America, and the organization, power, procedures, function, services, and finances of the United States government. 3 semester hours credit.

HI 315 Nineteenth Century Europe UG

This course is primarily concerned with the political, social, and intellectual developments in the principal countries of Europe from the rise of Napoleon to the end of the century. 3 semester hours credit.

HI 316 Twentieth Century Europe UG

This course is concerned with the causes of World War I, the course of the war, and its aftermath. Political and social developments and economic and ideological trends between the wars will be studied. World War II and post-war international relations will be covered. 3 semester hours credit.

HI 317 British Political History Since 1603 UG

This course concerns itself with the political development of England and the British empire from the accession of the Stuarts to the present day. Chronologically parallel to the survey of American history, the course stresses those factors which show the relationship of American-British development of modern times. Although primarily concerned with political factors, this survey does not exclude economic and social factors, particularly when the history of ideas is an issue. 3 semester hours credit.

HI 318 British Empire and Commonwealth UG

The development of British imperial policy and colonial problems from the eighteenth century to the present will be covered. Emphasis will be placed upon British-Indian relations, British imperialism in Africa, and the development and aims of the Commonwealth as an institution. 3 semester hours credit.

HI 325 American Labor History UG

This course will examine the history of the labor movement in the United States during both the pre-industrial and industrial periods. Emphasis will be placed on the reciprocal relationships of workingmen, negroes, and urbanization and industrialization. 3 semester hours credit.

HI 333 Latin America: The Colonial Period UG

This course is concerned with the development of Spanish and Portuguese civilization in Latin America in the period between the discovery of America and the successful revolts against Spain early in the nineteenth century. 3 semester hours credit.

HI 334 Latin America: The National Period UG

This course studies the Latin American countries from the time that they achieved independence to the present. Prerequisite: HI 333 (Latin America: The Colonial Period UG). 3 semester hours credit.

HI 343 Ancient World to 336 B.C. UG

A study of prehistoric times, the early civilizations, and Greece from the Bronze Age to the death of Alexander the Great will be offered. 3 semester hours credit.

HI 344 Roman History UG

This course covers the history of Rome from ancient times to the reign of Justinian. Emphasis will be placed on the expansion of Rome from city to empire; the Hellenistic East; imperial administration and law; the origin and spread of Christianity; the decline of the Empire and the raids of the barbarians. 3 semester hours credit.

HI 353 Historiography UG

This course is concerned with the development of historical writing; the interpretation of history as illustrated by major historians; the evaluation of historical writings through professional journals and the method of the book review. Membership in the course is limited to fifteen. Students are admitted with the consent of the Departmental Chairman and the Instructor. Students who complete this course are expected to elect HI 354 (Study and Writing of History UG). 3 semester hours credit.

HI 354 Study and Writing of History UG

This course is concerned with the development of the techniques of historical research and the preparation of papers which require

these techniques. Varieties, analysis, and evaluation of source material will be stressed. Prerequisite: HI 353 (Historiography UG) or its equivalent. Students are admitted with the consent of the Departmental Chairman and the Instructor. 3 semester hours credit.

HI 371 Comparative Government UG

A comparative study of the origin and development of governments, parties, political ideologies, and social policies in the United Kingdom, the U.S.S.R., France, and Japan. Prerequisite: HI 271 (Introduction to Political Science UG) and HI 272 (American Government: The Federal System UG), or equivalent courses. 3 semester hours credit.

HI 372 American Government: State and Local Government UG

This course considers the development, structure, and function of state government in the United States. The relation between the state, local, and national governments will be considered. Government at the local level with emphasis on Massachusetts experience and some emphasis on town and city management will be studied. 3 semester hours credit.

HI 413 Contemporary Affairs UG

Current sociological, economic, political, military, and scientific events are studied in publications and by means of television and radio broadcasts. The course attempts also an evaluation of the impact of science on contemporary society. 3 semester hours credit.

HI 415 Modern Russia To 1917 UG

Political, social and economic factors in the history of Russia from the end of the fifteenth century to the Revoluation will be considered. 3 semester hours credit.

HI 416 History of the U.S.S.R. UG

The political, social, intellectual, and diplomatic development of Russia will be considered. Completion of HI 415 (Modern Russia To 1917 UG) and a survey course in European history is recommended. 3 semester hours credit.

HI 419 Intellectual History of Modern Europe UG

This course will examine the main currents in European intellectual and cultural life from the seventeenth century down to contemporary times. 3 semester hours credit.

HI 421 History of Massachusetts UG

In this course the English background of the Pilgrims and Puritans,

the Plymouth Colony and Massachusetts Bay settlements, Puritanism and the Massachusetts theocracy, Massachusetts in the Provincial Period, and the American Revolution will be studied. In addition to a consideration of political history, Massachusetts is studied in the national period in terms of constitutional development, population shifts, industrial growth, the effects of immigration, and the economic changes of the twentieth century. The organization of the state government and the constitution are also studied. Much use will be made of primary source materials in developing the course. 3 semester hours credit.

HI 423 Social and Intellectual History of the United States to 1870 UG

This course will consider the economic, social and cultural development of the American people to the period shortly after the close of the Civil War. The importance of the agricultural society, the development of a distinctly American character, and the spread of democracy will be studied. The life of the people rather than political events will be stressed. Lectures will be supplemented by slides, tapes, and recordings. A survey course in U.S. history would be helpful but it is not a prerequisite. 3 semester hours credit.

HI 424 Social and Intellectual History of the United States since 1870 UG

This course traces the transition of American society from an agrarian rural base to an industrial and urban life. The triumph of a mechanized and scientific society with its implications in the economic, social, and intellectual life of the people will be considered. 3 semester hours credit.

HI 430 Europe in the Middle Ages UG

The period covered is from the fall of Rome to the Renaissance of the fifteenth and sixteenth centuries. Topics included are the German invasion, the rise of Christianity, the expansion of Islam, the development of the Byzantine state, the rise of nations, the conflict between church and state, and the cultural development of medieval Europe. 3 semester hours credit.

HI 432 Modern European Imperialism UG

This course considers the motives, methods, and results of imperialism in the nineteenth and twentieth centuries. The partition of Africa and the penetration of Asia will be considered as contrasting phases in the expansion of Europe. 3 semester hours credit.

HI 434 The French Revolution and the Napoleonic Era UG

A survey of life under the Old Regime, the upheaval of the 1790's, the history of the Empire, and their effects upon the rest of Europe. 3 semester hours credit.

HI 436 The Renaissance and the Reformation UG

This course traces developments in western Europe from the decline of feudal institutions to the emergence of the modern state system. Attention is focused on the cultural and intellectual currents which accompanied economic, social and political changes. Prerequisite: completion of the survey course in Western Civilization. 3 semester hours credit.

HI 441 American Negro History UG

This course traces the background of the American Negro, his West African origins, the development of the slave trade, the Negro as an economic and social factor in the development of America, the Negro in the period of Reconstruction, and the role of the Negro in American life in the past century. 3 semester hours credit.

HI 461A Far Eastern History UG

This course deals primarily with the history of China and Japan during the last century. Some consideration is also given to the problems of the Philippines, Indonesia, Southeast Asia, India, and Australia. 3 semester hours credit.

HI 471A International Relations UG

Following a consideration of the basic factors in international relations, the development of the western state system, and the principles of balance of power, nationalism, and imperialism, the course covers the establishment of international organizations in modern times and the post-war regional organizations. Each student makes a study of the contemporary international problems of a country or region. 3 semester hours credit.

HI 481 United States Foreign Relations to 1898 UG

This course will trace the history of the foreign relations of the United States from the American Revolution to the end of the Spanish-American War. Successful completion of a course in United States history is recommended. 3 semester hours credit.

HI 482 United States Foreign Relations since 1898 UG

This course considers the background of the Spanish-American War, imperialism, the Open Door policy in Asia, Latin-American relations, the background and the results of World War I and World War II, and the diplomacy of the Cold War. 3 semester hours credit.

HI 483 United States History: Progressive Era UG

This course traces the rise of the Progress ...ent in American history to the early 1920's as reflected ... cs, government, and the social and intellectual life of the era. 3 semester hours credit.

HI 484 Recent American History UG

The development of modern America through the isolationism and boom of the 1920's, the Great Depression, the New Deal, World War II, and the role of the United States in world affairs will be considered. 3 semester hours credit.

HI 485 United States History: The Civil War UG

The period of the American Civil War and Reconstruction is studied topically. Among the items to be considered are the background and causes of the war, the military and naval aspects, Civil War music, art, and literature, diplomacy of the Civil War, the home front in the war, the plans for reconstruction, and military reconstruction. Lectures will be supplemented by slides, motion pictures, and recordings. The completion of a course in American history before taking this course is recommended. 3 semester hours credit.

HI 487 The American Revolution 1763–1787 UG

The topics to be considered in this course are the background and causes of the American Revolution, the military, social, political and diplomatic aspects of the Revolution, the government under the Articles of Confederation, and the problems engendered by the attainment of political independence. 3 semester hours credit.

HI 488 United States History: The Colonial Period 1607–1763 UG

The following topics are covered: the settlement and growth of the English colonies in America; England's colonial policies; economic and institutional development in the provincial period; the wars with the Indians; the rivalry with the French in America. 3 semester hours credit.

HI 489 United States History: The Early National Period UG

The course of United States history from the establishment of the republic to the election of Andrew Jackson will be studied. 3 semester hours credit.

HI 490 Jacksonian Democracy and the Coming of the Civil War UG

The election of Andrew Jackson and the "rise of the common man," the Whig-Democrat rivalry, the Texas question, Manifest Destiny, the rise of abolitionism, the events leading to the outbreak of the Civil War. 3 semester hours credit.

HI 491 English History To 1603 UG

The course of English history from Roman times to the accession of the Stuart dynasty will be studied. 3 semester hours credit.

HI 492 Modern France UG

The history of France from the rise of Napoleon Bonaparte to the end of World War II will be considered in this course. 3 semester hours credit.

HI 493 Modern German History UG

The course of German history from the reign of Frederick the Great to the end of World War II will be considered. 3 semester hours credit.

HI 494 United States History 1865–1900 UG

Beginning with the Reconstruction period this course traces the economic, political, and diplomatic history of the United States to the end of the nineteenth century. 3 semester hours credit.

HI 501 Seminar in Historical Methodology G

The basic methods of historical research and historical writing and the proper use of primary and secondary sources, bibliography; documentation, and annotation will be studied. Varieties, analysis and evaluation of source materials and construction of narrative will be considered. 3 semester hours credit.

HI 502 Directed Study for Master of Arts Thesis G

6 semester hours credit.